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Water Resources Data New Jersey Water Year 1982. Volume 1. Atlantic Slope Basins, Hudson River to Cape May

(U.S.) Geological Survey, Trenton, NJ

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U.S. Department of Commerce
National Technical Information Service
NTIS

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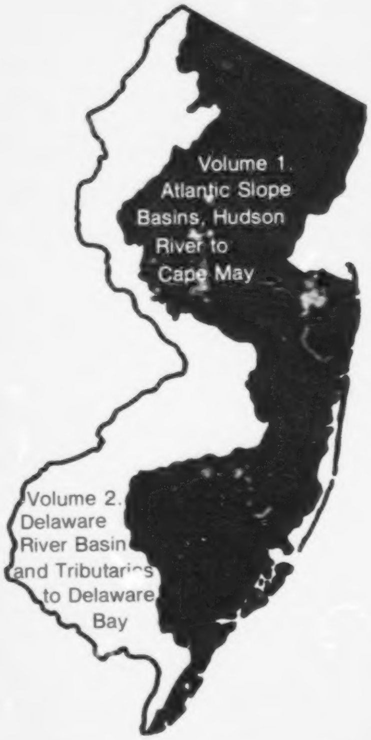
Water Resources Data New Jersey

Water Year 1982

Volume 1. Atlantic Slope Basins, Hudson River to Cape May


Volume 1. Atlantic Slope Basins, Hudson River to Cape May
Volume 2. Delaware River Basin and Tributaries to Delaware Bay

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-82-1
Prepared in cooperation with the New Jersey
Department of Environmental Protection
and with other agencies

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NATIONAL TECHNICAL
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SPRINGFIELD, VA. 22161

CALENDAR FOR WATER YEAR 1982

1981

OCTOBER

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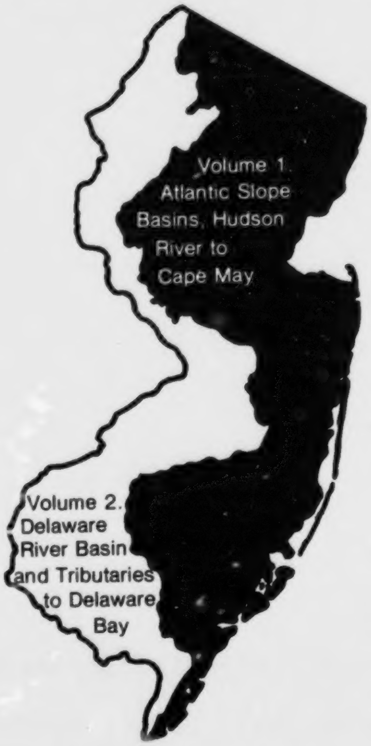
Water Resources Data New Jersey
Water Year 1982

Volume 1. Atlantic Slope Basins, Hudson River to Cape May

by W.R. Bauersfeld, E.W. Moshinsky, E.A. Pustay, and F.L. Schaefer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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-82-1
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Department of Environmental Protection
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UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to

District Chief, Water Resources Division
U.S. Geological Survey
Room 430, Federal Building
402 East State Street
Trenton, New Jersey 08608

1983

PREFACE

This volume of the annual hydrologic data report of New Jersey is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for New Jersey are contained in 2 volumes:

Volume 1. Atlantic Slope Basins, Hudson River to Cape May
Volume 2. Delaware River Basin and Tributaries to Delaware Bay

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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T.A. Chepiga
G.R. Kish
R.D. Schopp
W.D. Jones
G.M. Farlekas

S.J. Perry and I.C. Heerwagen typed the text of the report.

This report was prepared in cooperation with the State of New Jersey and with other agencies under the general supervision of D.E. Vaupel, District Chief, New Jersey.

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16. Abstract (Limit: 200 words)

Water Resources data for the 1982 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume of the report contains discharge records for 77 gaging stations; tide summaries for one (1) station; stage and contents for 15 lakes and reservoirs; water quality for 76 surface-water sites and 158 wells; and water levels for 49 observation wells. Also included are data for 42 crest-stage partial-record stations; 17 tidal crest-stage gages; and 37 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the national water data system operated by the U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

17. Document Analysis a. Descriptors

*New Jersey, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

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SURFACE WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letter after station name designates type of data: (d) discharge, (c) chemical, (m) microbiological, (e) elevation, gage height or contents, (t) water temperature, (s) sediment]

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INTRODUCTION

Water resources data for the 1982 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume contains water discharge at 77 gaging stations; tide summaries for 1 station; stage and contents for 15 lakes and reservoirs; water quality for 76 surface water sites and 158 wells; and water levels for 49 observation wells. Also included are data for 42 crest-stage partial-record stations, 17 tidal crest-stage gages and 37 low-flow partial-record stations. Locations of these sites are shown in figures 5, 6, and 7. Additional water data were collected at various sites not part of the systematic data collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volume 2 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in New Jersey.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Virginia 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in offical Survey reports on a State-boundary basis. These offical Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume of the report is identified as "U.S. Geological Survey Water-Data Report NJ-82-1." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (609) 989-2162.

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North Jersey District Water Supply Commission, Dean C. Noll, chief engineer.
Passaic Valley Water Commission, W.E. Inhoffer, general superintendent and chief engineer.
County of Bergen, E.R. Ranuska, director of Public Works and county engineer.
County of Camden, Joseph T. Patermo, director of Camden County Planning Board.
County of Morris, James Plante, chairman of Morris County Municipal Utilities Authority.
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SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow increased significantly from the previous year. Streamflow in 1982 water year ranged from slightly above normal in northern New Jersey to 80 percent of normal in the south. Precipitation for the period was 94 percent of normal. Most reservoirs showed a recovery in storage and by the end of the year averaged 88 percent of capacity compared to 67 percent at the end of the previous year.

Water year 1982 began with streamflow near normal throughout the state. However, river flow showed a steady decline until by the end of December, runoff was from 1.5 to 2.0 inches deficient. A storm on January 4, resulting in from 1.5 to 2.5 inches of precipitation, began streamflow on an upward trend but a severe cold spell during January slowed down runoff. From February through May, the precipitation was below average and below normal streamflow was again recorded. Not until June did rivers show signs of recovery. Storms on June 14, 17, and 30 resulted in more than 75 percent of the month's rainfall, which was 157 percent of normal. For the remainder of the water year, rainfall was such that in northern New Jersey streamflow runoff was about normal while in the southern part of the state it was below normal.

Streamflow at the index station for northern New Jersey, South Branch Raritan River near High Bridge, averaged 125 ft^3/s (3.54 m^3/s) which was 103 percent of the 64-year average. The High Bridge runoff was 0.9 inches above the 25-inch long-term average. Streamflow at the index station for southern New Jersey, Great Egg Harbor River at Folsom, averaged 71.6 ft^3/s (2.03 m^3/s) which was 83 percent of the 57-year average. The Folsom runoff was 3.6 inches below the 21-inch long-term average. The observed annual mean discharge of the Delaware River at Trenton was 10,230 ft^3/s (289.7 m^3/s) which was 87 percent of normal. However, the Delaware River is highly regulated by reservoirs and diversion. The natural flow at Trenton (adjusted for diversion and storage upstream) was 97 percent of normal for the year.

Figures 2 and 3 compare the monthly and annual discharges with past records at the three index gaging stations.

Storage in the 13 major water-supply reservoirs in New Jersey increased from 50.2 billion gallons (67 percent of capacity) on October 1, 1981 to 66.3 billion gallons (88 percent of capacity) on September 30, 1982. Storage in Wanaque Reservoir increased from 16.9 billion gallons (61 percent of capacity) on October 1, 1981 to 24.4 billion gallons (87 percent of capacity) on September 30, 1982. Pumped storage in Round Valley Reservoir decreased from 42.4 billion gallons (77 percent of capacity) on October 1, 1981 to 39.8 billion gallons (72 percent of capacity) on September 30, 1982.

Return to near normal precipitation contributed to general improvement in water quality as reflected by specific conductance. Values of monthly means of specific conductance for non-winter months at the Passaic River at Little Falls and the Maurice River at Norma indicate decreases in dissolved solids concentrations. Rainfall in June also produced the lowest recorded values of specific conductance in the Maurice River at Norma since January 1980.

Ground-water levels that were affected mainly by climatic conditions were below normal for the second consecutive year. This was true for many water-table and confined aquifers in the northern counties as well as the water-table aquifers of the Atlantic Coastal Plain. Artesian water levels in most wells tapping the heavily stressed confined aquifers of the Coastal Plain continued to show long-term net declines. Increasing withdrawals of ground water contributed to these declines. As in past years, the declines were greatest in the Potomac-Raritan-Magothy aquifer system throughout the Coastal Plain and in the Wenonah-Mount Laurel, Englishtown, Old Bridge, and Farrington aquifers in the northern part of the Coastal Plain.

Monthly water levels are compared with long-term averages at two observation wells in figure 4. The wells illustrated are Bird in Hunterdon County and Crammer in Ocean County. For further comparison, 5-year hydrographs for most of the wells included in these reports are provided with the 1982 water-level records for the specific wells.

DEFINITION OF TERMS

Terms related to streamflow, water-quality and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound Units to Metric Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life processes. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Aquifer codes and geologic names:

The following list shows the aquifer codes and geologic names of the formations in which the sampled wells are finished. The aquifer codes also appear in the column "Geologic Unit" in the ground-water quality tables:

112CPMY , CAPE MAY FORMATION, UNDIFFERENTIATED
112ESRNS , CAPE MAY FORMATION, ESTUARINE SAND FACIES
121CNSY , COHANSEY SAND
121CKKD , KIRKWOOD-COHANSEY AQUIFER SYSTEM
112SFDF , STRATIFIED DRIFT
122KRKDU , RIO GRANDE WATER-BEARING ZONE OF THE KIRKWOOD FORMATION
122KRKDL , ATLANTIC CITY 800-FOOT SAND OF THE KIRKWOOD FORMATION
124MNSQ , MANASQUAN FORMATION
124PNPN , PINEY POINT AQUIFER
211MLRW , WENONAH-MOUNT LAUREL AQUIFER
211EGLS , ENGLISHTOWN AQUIFER
211MRPA , POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM
211ODBG , OLD BRIDGE AQUIFER OF THE MAGOTHY FORMATION
211FRNG , FARRINGTON AQUIFER OF THE RARITAN FORMATION
231BRCK , BRUNSWICK SHALE OR FORMATION
231SCKN , STOCKTON FORMATION

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 0.5°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are charac-terized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 0.5°C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bedload is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, used for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3) and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the quantity of organic matter which can be chemically oxidized in the presence of a strong oxidant.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuing record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken one or more times daily.
3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (ft^3/s, cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of the evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum is a datum plane that is approximately at the land surface at the well.

Low tide is the minimum height reached by each falling tide.

Mean high or low tide is the average of all high or low tides, respectively, over a specified period.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (UG/G) is a unit expressing the concentration of a chemical element as the weight (micrograms) of the element sorbed per unit weight (gram) of sediment.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in Hem (1970).

National Geodetic Vertical Datum of 1929 (NGVD of 1929). A geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada, formerly called "Mean Sea Level."

NJ-WRD well number is a hyphenated, 6-digit identification number which the U.S. Geological Survey assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. This numbering system was developed in 1978 to simplify identification of wells. The first two digits are a code for the county in which the well is located, and the last four digits are a sequence number. Each well added to GWSI is assigned the next higher sequence number for the county in which the well is located. These NJ-WRD well numbers are being used now in the ground-water level descriptions, wells sampled for water-quality analyses, and on the corresponding location maps in these reports.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in active water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PCI, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg $C/(m^2/time)$ for periphyton and macrophytes and mg $C/(m^3/time)$ for phytoplankton] are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity that the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg $O_2/(m^2/time)$ for periphyton and macrophytes and mg $O_2/(m^3/time)$ for phytoplankton] are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having an atomic weight of 35.453.

Radioisotopes that are determined in this report are natural uranium in µg/L (micrograms per liter), radium as radium-226 in PCI/L, (pCi/L, picocuries per liter), gross beta in PCI/L, and gross alpha radiation as micrograms of uranium equivalent per liter (µg/L). Gross alpha and beta radioactivity associated with the fine grained (silt and clay sized) sediments in the samples are also determined.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

River mile as used herein, is the distance above the mouth of Delaware Bay, measured along the center line of the navigation channel or the main stem of the Delaware River. River mile data were furnished by the Delaware River Basin Commission.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Screened interval (FT) is the length of well screen through which water enters a well, in feet below land surface.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content of the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physcial surface upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization by organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom.................Animal
Phylum..............Arthropoda
Class..................Insecta
Order............Ephemeroptera
Family.............Ephemeridae
Genus................Hexageria
Species......Hexagenia limbata

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperatures of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total" (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample).

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is being transported in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

WDR is used as an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports. Prior to 1975, WRD was used, which was the abbreviation for "Water-Resources Data."

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 01463500, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "463500."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The wells and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and a miscellaneous site are the same, they are assigned sequential numbers "01", "02", etc. as one would for wells. See figure 1 below.

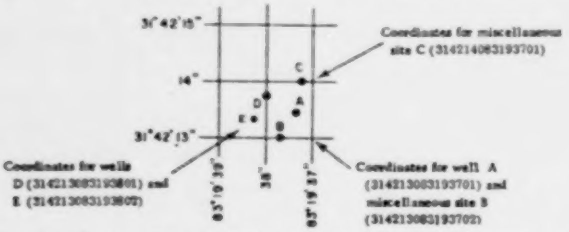
31°42'15"
14"
31°42'13"
083°19'38"
37"
083°19'36"
A
B
C
D
E
Coordinates for miscellaneous site C (314214083193701)
Coordinates for wells D (314213083193801) and E (314213083193802)
Coordinates for well A (314213083193701) and miscellaneous site B (314213083193702)

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in stream where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are decribed in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharge are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage height are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location for the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present stations or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical

Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first the extremes for current year, second, the extremes for the period of record, and last information available outside the period of record. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest-stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water record for the 5-year period October 1, 1965 to September 30, 1970, also will include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Paper 1302; records for October 1950 to September 1960 have been compiled and published in Water-Supply Paper 1722; records for October 1960 to September 1965 have been compiled and published in Water-Supply Paper 1902; records for October 1965 to September 1970 have been compiled and published in Water-Supply Paper 2102. These reports contain summaries of monthly and annual discharge and month-end storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of stage or discharge collected by agencies other than the Geological Survey

Records of stage or discharge not published by the Geological Survey were collected in New Jersey at 30 sites during the water years October 1960 to current year by the following agencies: records at 4 sites were collected by the North Jersey District Water Supply Commission; at 14 sites by Passaic County; at 1 site by the National Weather Service; at 3 sites by the National Ocean Survey; at 3 sites by the Corps of Engineers; and 5 sites by Delaware River Joint Toll Bridge Commission. The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintain an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads.

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for water-quality data, extremes of the pertinent data, and general remarks. For ground-water sampling stations, no descriptive statements are presented. However, the well number, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Water-quality information is presented for chemical, and microbiological quality, water temperature, and fluvial sediment. Chemical quality includes the concentrations of individual constituents and certain properties such as hardness, specific conductance, and pH. Microbiological information includes quantitative identifications of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a water-quality noncontinuous-digital monitor furnishes hourly temperature readings that provide daily maximum, minimum, and mean temperature data summaries. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using table 1 below.

Table 1.--Degrees Celsius (°C) to degrees Fahrenheit (°F)* (Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
0.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	[illegible]	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," and table for converting Inch-pound Units to International System Units, inside back cover).

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed at the end of this section. Analysis of pesticides, herbicides, and organic substances in water are described by Goerlitz and Brown. The collection and analysis of aquatic and microbio logical samples are described by Greeson and others.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through many vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

For chemical-quality stations equipped with noncontinuous-digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey district office (for address see Page IV).

The quality of ground water normally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are collected after prepumping the well and are analyzed individually.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. Influential factors, field measurement, and data representation of temperature are described by Stevens, Ficke and Smoot (1975).

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross-section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment are included.

Remark codes for water-quality data

PRINTED OUTPUT	REMARK	PRINTED OUTPUT	REMARK
E	ESTIMATED VALUE	<	ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN
>	ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN	ND	MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED
K	RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT)		

Publications

Table 2 below, shows the annual series of water-supply papers that give information on quality of surface waters in New Jersey.

Table 2.--Water-supply paper (WSP) numbers, water years, 1945-70

Year	WSP	Year	WSP	Year	WSP
1945	1030	1954	1350	1963	1947
1946	1050	1955	1400	1964	1954
1947	1102	1956	1450	1965	1961
1948	1132	1957	1520	1966	1991
1949	1162	1958	1571	1967	2011
1950	1186	1959	1641	1968	2091
1951	1197	1960	1741	1969	2141
1952	1250	1961	1881	1970	2151
1953	1290	1962	1941		

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude (see figure 1) and (2) a local name and a NJ-WRD well number that are provided for local needs.

Water-level measurements in this report are given in feet with reference to land-surface datum (LSD, lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above NGVD 1929, and the height of the measuring point (MP) above or below land-surface datum is given in each well description.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level data in these reports were obtained from water-level recorders, water-level extremes recorders, and from periodic manual measurements. The equipment used at each well is described in the well description under the listing "Instrumentation." Water levels in wells equipped with water-level recorders are reported for every fifth day and the end of each month (eom). Beginning in the 1977 water year, water-level recorders were removed from some wells and replaced by water-level extremes recorders. The extremes are read from these recorders at about three month intervals, but the actual dates of occurrence of the extremes (highest and lowest water levels) are unknown. In these reports the water-level extremes are given with the interim dates together with the manually measured water levels.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. All measurements published herein are reported to a hundredth of a foot.

Publications

Table 3 below, shows the series of water-supply papers that give ground-water level data for New Jersey, 1935 to 1974. No water-level data were published in 1975. Beginning in 1976, ground-water level data for New Jersey have been published in these annual water data reports.

Table 3.--Water-supply paper (WSP) numbers, water years, 1935-74

Year	WSP	Year	WSP	Year	WSP
1935	777	1944	1016	1953	1265
1936	817	1945	1023	1954	1321
1937	840	1946	1071	1955	1404
1938	845	1947	1096	1956-57	1537
1939	866	1948	1126	1958-62	1782
1940	906	1949	1156	1963-67	1977
1941	936	1950	1165	1968-72	2140
1942	986	1951	1191	1973-74	2164
1943	986	1952	1221		

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NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

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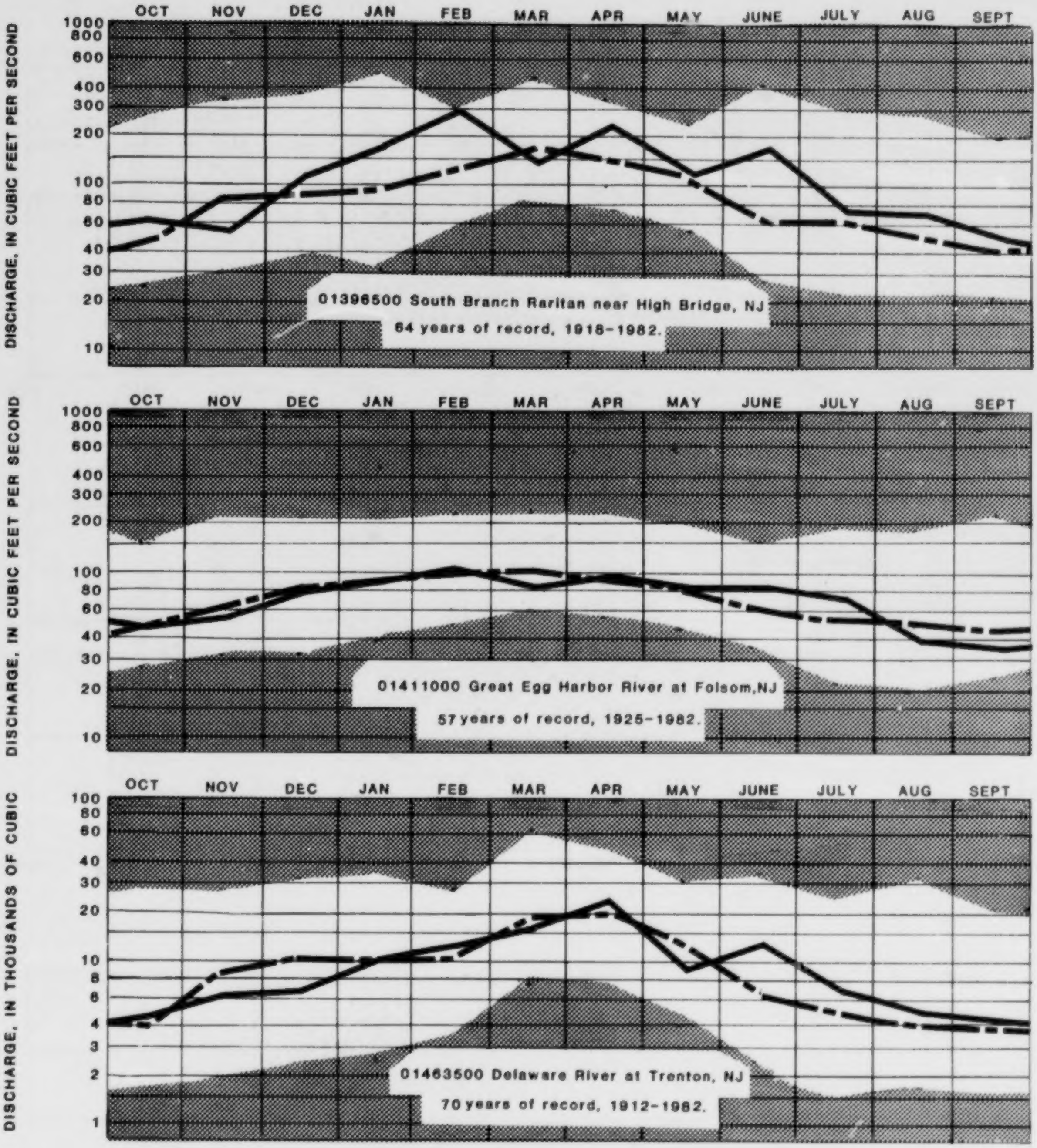


Unshaded area.--Indicates range between highest and lowest mean recorded for the month, prior to 1982 water year.

Dashed line.--Indicates normal (median of the monthly means) for the standard reference period, 1951-1980.

Solid line.--Indicates observed monthly mean flow for the 1982 water year.

FIGURE 2.--MONTHLY STREAMFLOW AT KEY GAGING STATIONS.

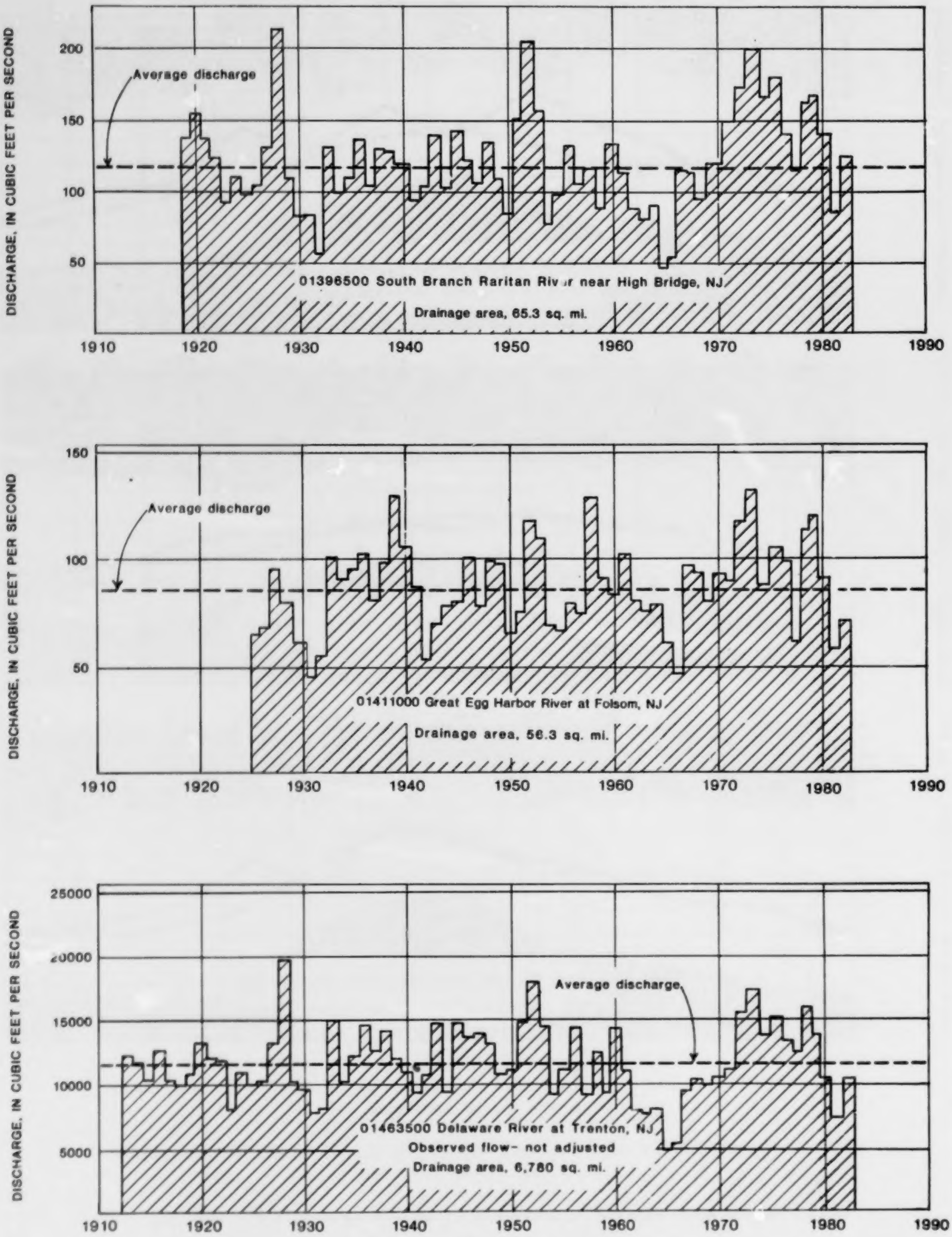
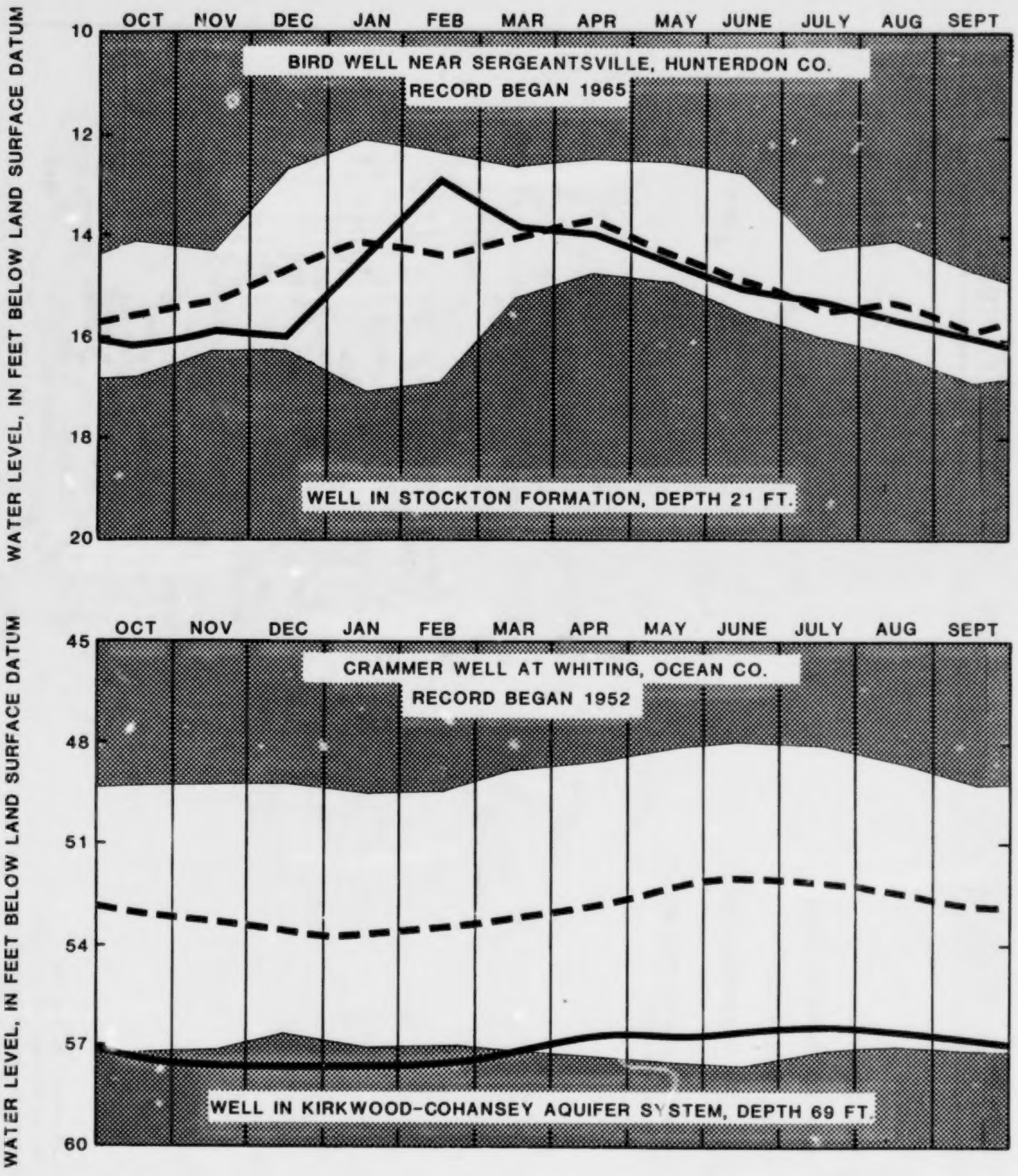


FIGURE 3.--ANNUAL MEAN DISCHARGE AT KEY GAGING STATIONS



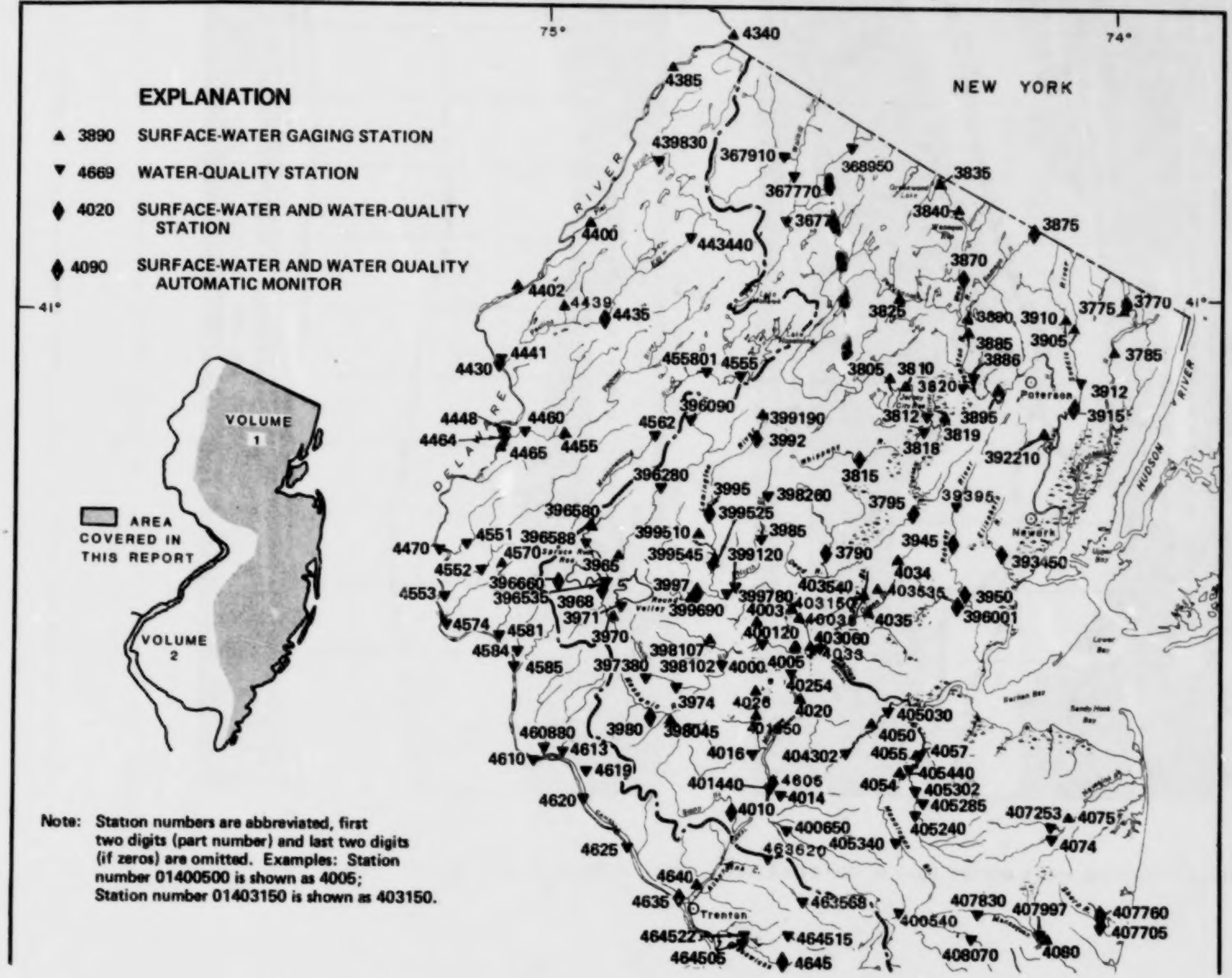
Unshaded area.--Indicates range between highest and lowest recorded monthly minimum water levels, prior to the current year.

Dashed line.--Indicates average of the monthly minimum water levels, prior to current year.

Solid line.--Indicates monthly minimum water level for the current year.

FIGURE 4.--MONTHLY GROUND-WATER LEVELS AT KEY OBSERVATION WELLS.

WATER RESOURCES DATA FOR NEW JERSEY, 1982



Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01400500 is shown as 4005; Station number 01403150 is shown as 403150.

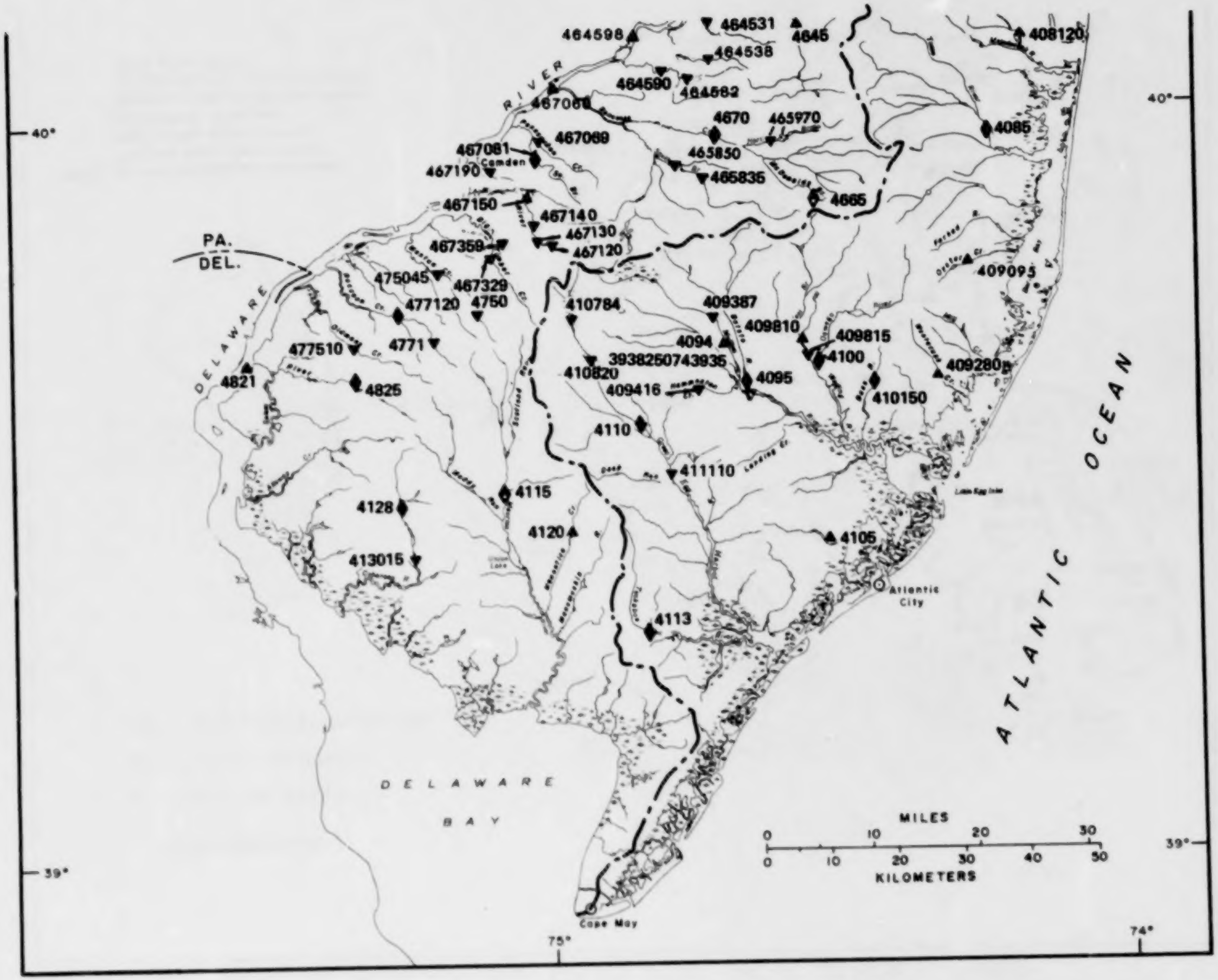
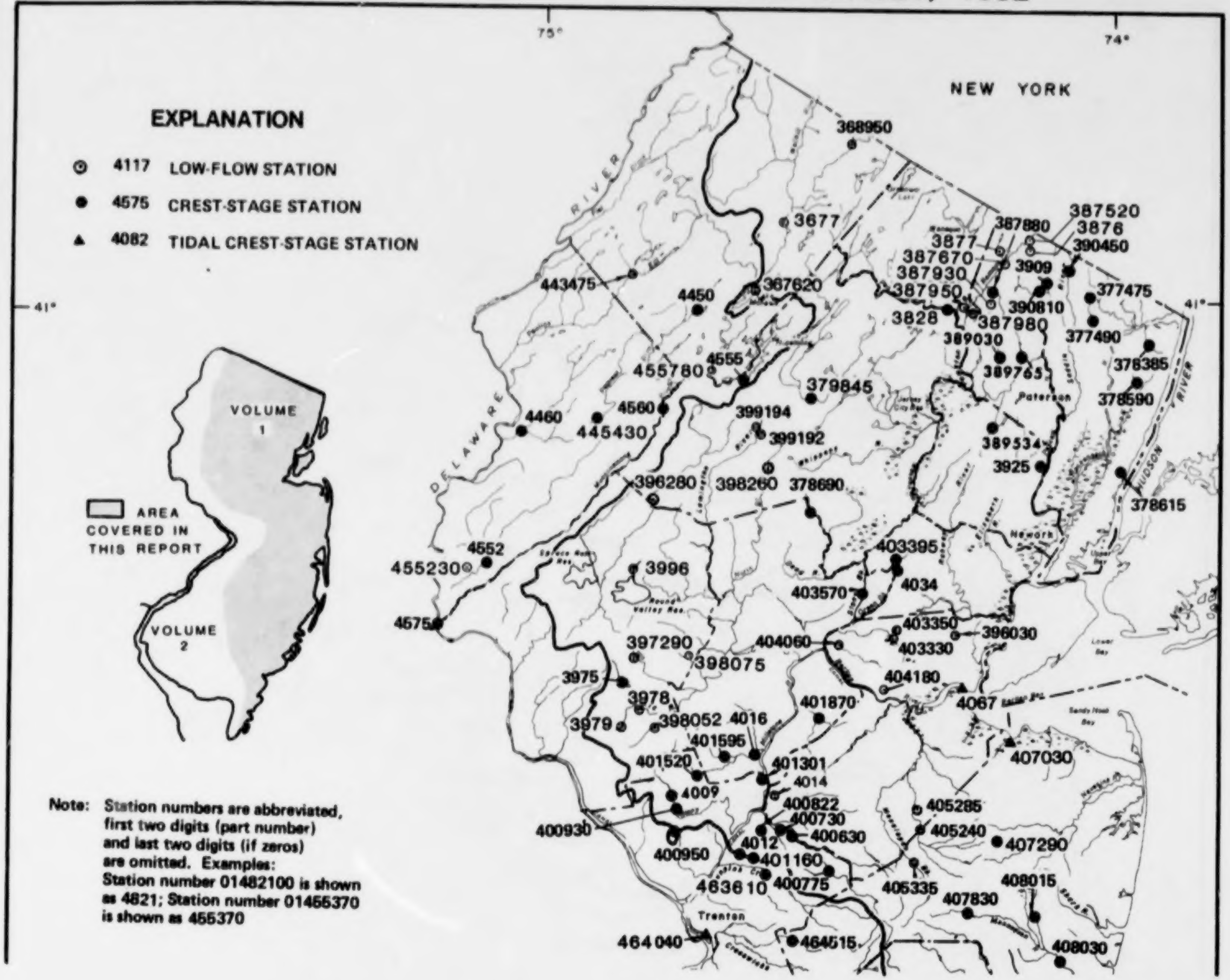


Figure 5.--Location of surface-water gaging stations and water-quality stations.

WATER RESOURCES DATA FOR NEW JERSEY, 1982



Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01482100 is shown as 4821; Station number 01455370 is shown as 455370

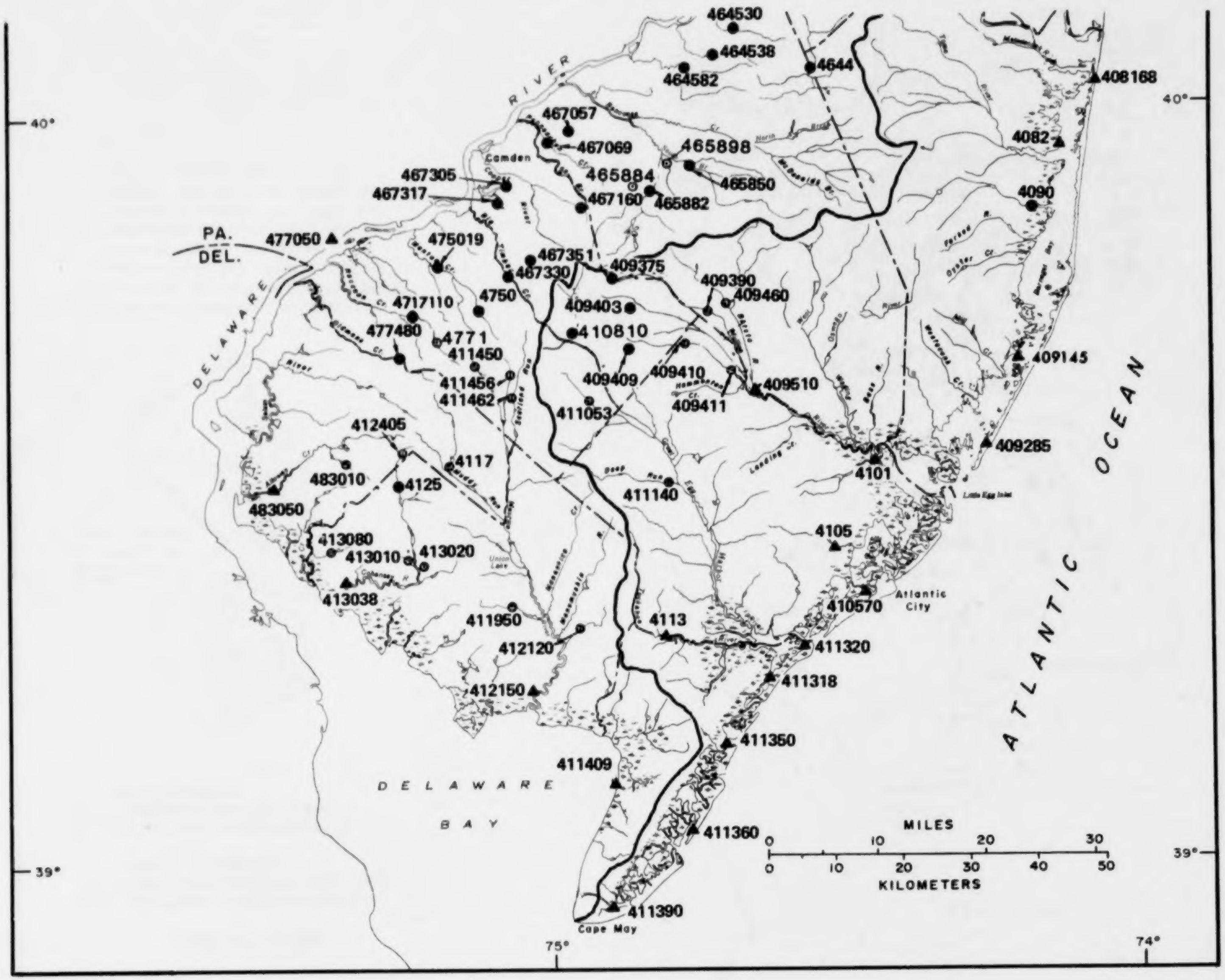
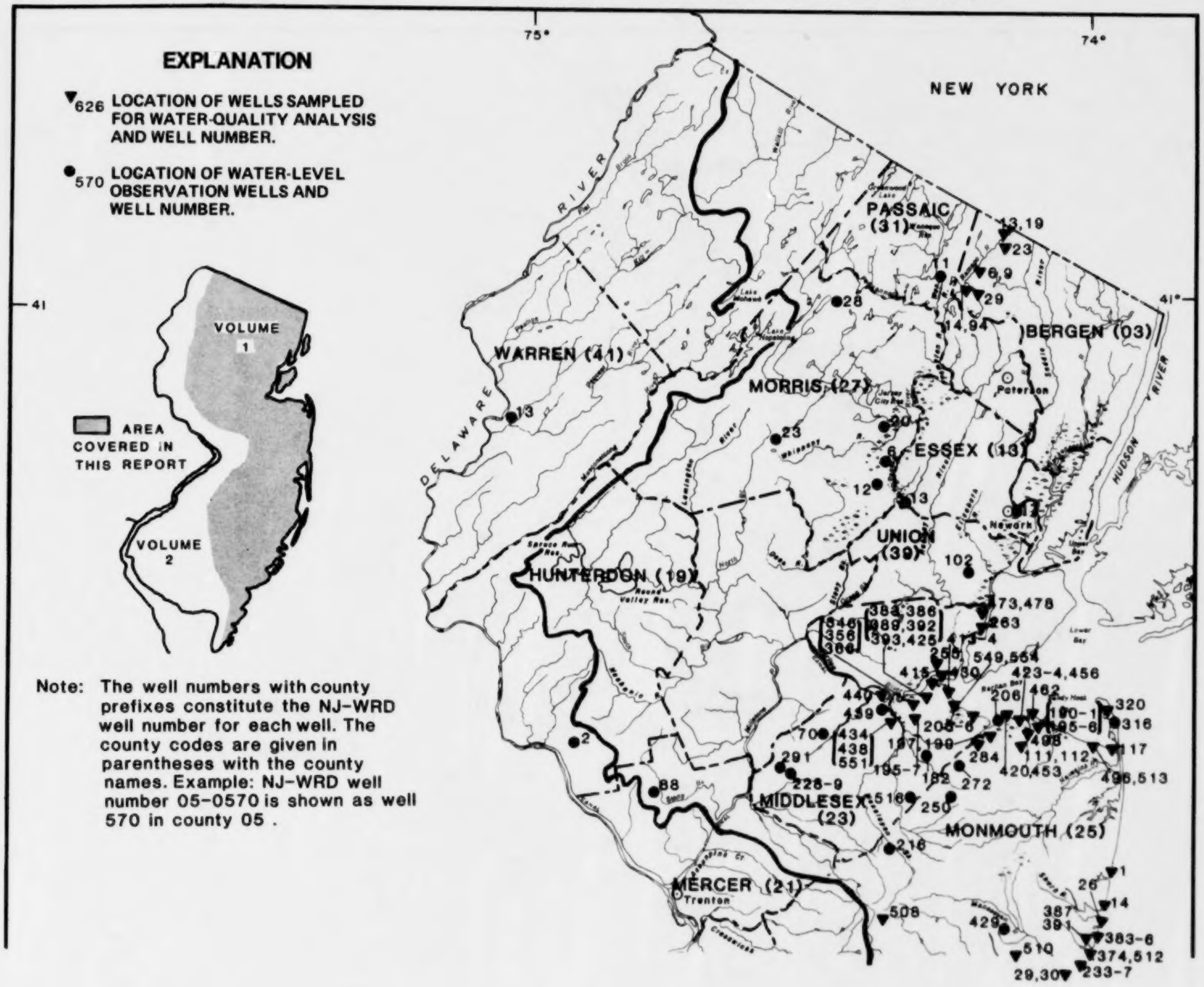


Figure 6.--Location of low-flow and crest-stage partial record stations.

WATER RESOURCES DATA FOR NEW JERSEY, 1982



EXPLANATION

▼626 LOCATION OF WELLS SAMPLED FOR WATER-QUALITY ANALYSIS AND WELL NUMBER.

●570 LOCATION OF WATER-LEVEL OBSERVATION WELLS AND WELL NUMBER.

▨ AREA COVERED IN THIS REPORT

Note: The well numbers with county prefixes constitute the NJ-WRD well number for each well. The county codes are given in parentheses with the county names. Example: NJ-WRD well number 05-0570 is shown as well 570 in county 05 .

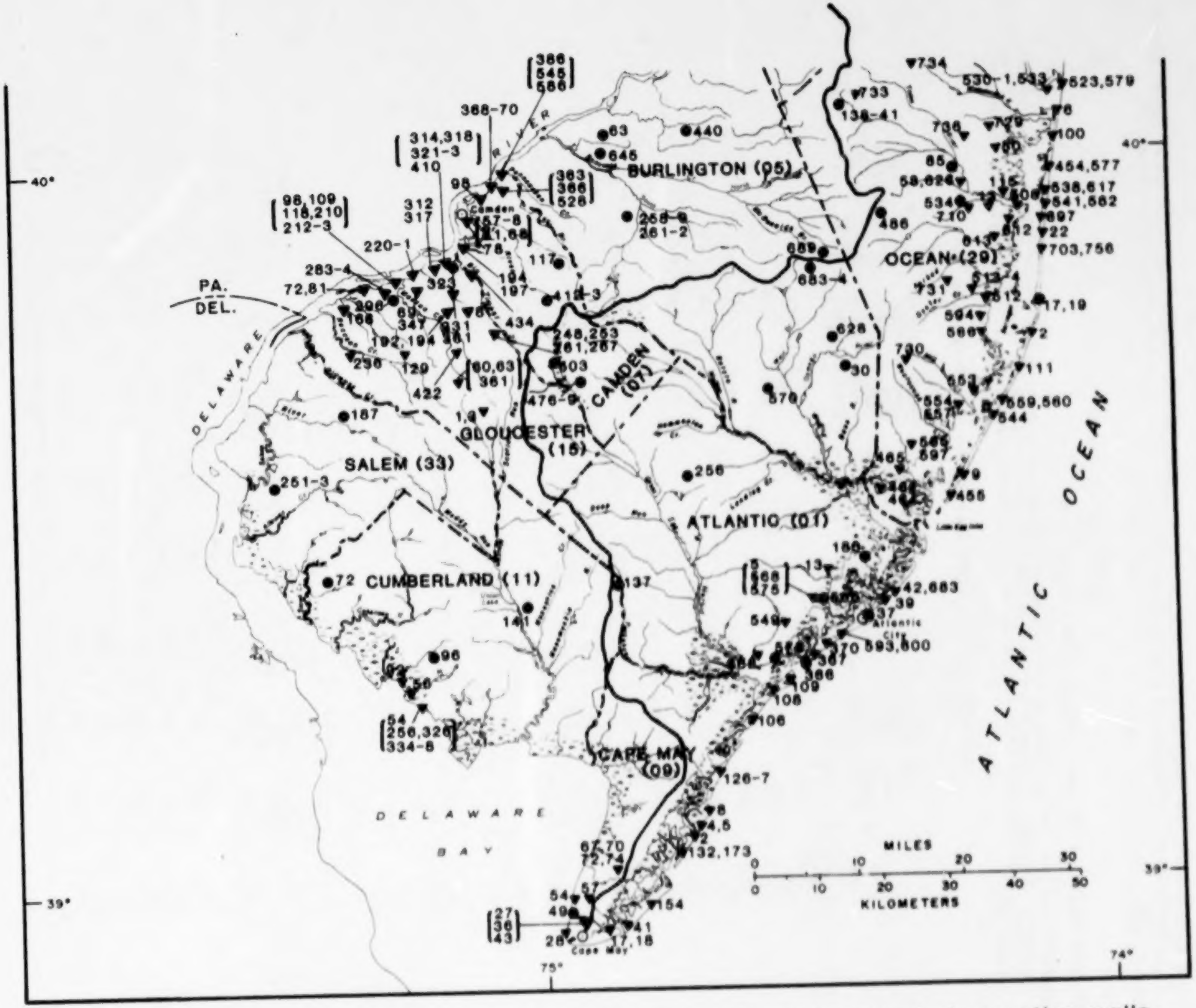


Figure 7. -- Map showing location of ground-water quality stations and observation wells.

HUDSON RIVER BASIN

01367700 WALLKILL RIVER AT FRANKLIN, NJ

LOCATION.--Lat 41°06'43", long 74°35'21", Sussex County, Hydrologic Unit 02020007, at bridge 120 ft (37 m) downstream from dam at outlet of Franklin Pond in Franklin, and 0.8 mi (1.3 km) upstream from Wildcat Brook.

DRAINAGE AREA.--29.4 mi^2 (76.1 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 20...	1100	485	8.1	8.0	10.1	E1.0	<20	5	180
FEB 23...	1250	340	7.7	2.0	12.5	E1.5	<20	13	96
MAR 30...	1250	340	8.1	5.5	13.9	<.7	<20	<2	110
MAY 27...	1200	403	8.4	16.0	10.9	E2.0	20	13	150
JUL 22...	1200	225	7.2	20.0	6.8	E1.5	490	920	77
AUG 23...	1230	396	8.3	17.5	10.2	4.0	<20	22	140

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 20...	39	19	28	2.5	140	<.1	24	52	.2
FEB 23...	23	9.3	24	1.1	70	--	16	47	<.1
MAR 30...	26	11	22	.7	82	--	17	44	.1
MAY 27...	35	14	21	1.3	111	<.5	20	49	.1
JUL 22...	20	6.5	13	.6	63	--	10	22	.1
AUG 23...	34	14	23	1.1	118	--	14	43	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 20...	3.8	274	.028	.59	--	.70	1.3	.28	2.9
FEB 23...	5.6	207	.010	.40	.250	.31	.71	.09	2.5
MAR 30...	3.8	222	.030	.30	<.050	E.55	--	.09	3.3
MAY 27...	4.7	250	.020	.40	<.050	.35	.75	.06	3.9
JUL 22...	7.4	144	<.010	.20	.110	.62	.82	.12	5.5
AUG 23...	6.2	221	.010	.30	.110	.53	.83	.12	6.1

01367700 WALLKILL RIVER AT FRANKLIN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 20...	1100	5670	19	24	<10	2	<1	<10	40	<1	2
MAY 27...	1200	--	--	--	60	2	--	<10	<10	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 20...	10	4	<10	6	2	280	170	3	20	60	2400
MAY 27...	10	--	--	3	--	310	--	3	--	90	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 20...	<.1	<.01	1	<10	<1	<1	60	170	8	1	<1.0
MAY 27...	<.1	--	1	--	<1	--	20	--	4	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 20...	<.1	<1.0	.1	.2	<.1	<.1	<.1	<.1	<.1	<.1	<.1
MAY 27...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 20...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
MAY 27...	--	--	--	--	--	--	--	--	--	--	--

01367770 WALLKILL RIVER NEAR SUSSEX, NJ

LOCATION.--Lat 41°11'38", long 74°34'32", Sussex County, Hydrologic Unit 02020007, at bridge on Glenwood Road, 0.8 mi (1.3 km) upstream of Papakating Creek, 1.7 mi (2.7 km) southwest of Independence Corner, 2.0 mi (3.2 km) southeast of Sussex, and 2.1 mi (3.4 km) northwest of McAfee.

DRAINAGE AREA.--60.8 mi² (157.5 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 20...	1300	21	537	8.1	7.0	10.6	E.5	490	79	220
FEB 23...	1150	90	410	7.8	1.5	14.0	<1.2	110	23	140
MAR 30...	1150	82	380	8.1	5.5	14.3	<.8	40	5	150
MAY 20...	1230	47	458	7.8	18.0	8.2	E2.8	130	130	170
JUL 22...	1030	165	308	7.4	19.5	6.8	E1.5	1300	350	120
AUG 23...	1100	29	483	8.0	--	9.2	E2.2	330	130	200
SEP 27...	1320	46	422	8.0	16.0	9.7	E2.8	--	--	190

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 20...	48	24	22	2.5	180	<.1	29	41	.1
FEB 23...	32	14	23	1.4	110	--	23	44	<.1
MAR 30...	34	15	20	1.2	120	--	22	35	.1
MAY 20...	40	17	16	1.4	159	--	20	40	.1
JUL 22...	29	11	14	1.0	110	--	11	21	.1
AUG 23...	46	21	20	1.3	170	--	20	37	.2
SEP 27...	43	20	20	2.2	141	<.5	19	34	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 20...	6.8	303	.027	.65	--	.40	1.0	.31	3.5
FEB 23...	6.2	260	<.010	.70	.290	.35	1.0	.12	2.6
MAR 30...	3.7	244	.030	.40	.320	E.70	--	.12	2.9
MAY 20...	4.4	240	.010	.70	.110	.50	1.2	.18	4.0
JUL 22...	9.3	186	.010	.20	.080	.78	.98	.25	7.0
AUG 23...	7.6	286	<.010	.60	.320	.37	.97	.18	4.4
SEP 27...	8.5	259	.010	.40	E.050	.62	1.0	.31	3.3

01367770 WALLKILL RIVER NEAR SUSSEX, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 20...	1300	4890	2.7	13	<10	2	<1	<10	40	<1	<1
SEP 27...	1320	900	4.8	10	30	3	<1	<10	30	<1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 20...	20	7	<10	7	3	160	600	1	<10	60	1300
SEP 27...	10	4	<10	10	2	470	1600	7	10	70	330

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 20...	<.1	<.01	27	20	<1	<1	60	240	13	11	<1.0
SEP 27...	<.1	<.01	5	10	<1	<1	40	180	4	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 20...	<.1	4.0	<.1	4.8	<.1	<.1	<.1	<.1	<.1	<.1	<.1
SEP 27...	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 20...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
SEP 27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01367910 PAPAKATING CREEK AT SUSSEX, NJ

LOCATION.--Lat 41°12'02", long 74°35'59", Sussex County, Hydrologic Unit 02020007, at bridge on State Route 23 in Sussex, 0.7 mi (1.1 km) downstream from Clove Brook, 2.6 mi (4.2 km) southwest of Independence Corner, and 3.4 mi (5.6 km) northwest of McAfee.

DRAINAGE AREA.--59.4 mi^2 (153.8 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 15...	1100	21	360	7.7	8.0	8.4	E2.9	80	70	130
MAR 03...	1200	66	235	7.2	1.5	13.6	E1.9	70	23	71
APR 01...	1200	240	206	7.7	8.0	11.2	E2.2	20	130	66
JUN 03...	1300	70	212	7.4	18.0	8.5	E2.4	3500	130	69
JUL 22...	1130	35	235	7.2	21.0	6.6	E1.8	1100	240	81
AUG 11...	1330	28	266	7.5	19.0	6.7	E2.3	--	--	93
SEP 27...	1230	26	275	7.6	16.5	8.0	E5.5	--	--	96

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 15...	41	6.2	19	3.2	83	<.1	39	25	<.1
MAR 03...	22	3.9	12	1.9	35	--	27	25	<.1
APR 01...	21	3.4	12	1.3	34	--	26	22	<.1
JUN 03...	22	3.4	12	1.4	44	<.5	20	20	<.1
JUL 22...	26	3.9	12	1.8	60	--	17	20	.1
AUG 11...	30	4.3	12	2.0	63	--	21	23	.1
SEP 27...	31	4.4	15	3.0	54	--	22	24	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 15...	4.7	225	.088	.95	--	E1.30	--	1.20	3.7
MAR 03...	5.6	153	E.020	1.2	.230	.78	2.0	.25	4.0
APR 01...	3.8	121	.010	.80	.120	E.60	--	.12	3.2
JUN 03...	7.1	141	.030	.60	.750	E.77	--	.31	6.6
JUL 22...	7.2	136	.030	.60	.240	.71	1.3	.40	6.0
AUG 11...	8.0	153	.040	.40	.120	.72	1.1	.40	6.8
SEP 27...	5.6	175	.020	.80	E.070	.93	1.7	.58	6.7

01367910 PAPAKATING CREEK AT SUSSEX, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 15...	1100	20	1	<10	30	<1	20	10
JUN 03...	1300	20	1	<10	40	<1	20	8

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 15...	670	13	120	<.1	5	<1	30	<1
JUN 03...	1200	4	130	<.1	1	<1	20	4

01368950 BLACK CREEK NEAR VERNON, NJ

LOCATION.--Lat 41°13'21", long 74°28'33", Sussex County, Hydrologic Unit 02020007, at bridge on Maple Grange road, 0.6 mi (1.0 km) upstream of confluence with Wawayanda Creek, 0.7 mi (1.1 km) northwest of Maple Grange, and 1.7 mi (2.7 km) northeast of Vernon.

DRAINAGE AREA.--17.3 mi² (44.8 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
15...	1300	6.6	850	8.3	7.0	12.0	E1.7	270	110	263
MAR										
03...	1050	21	590	7.7	2.0	11.5	E1.9	20	5	206
APR										
01...	1050	44	483	8.1	8.0	10.2	E2.1	50	33	188
MAY										
27...	1030	14	620	7.8	17.0	7.9	E1.8	230	540	239
JUL										
19...	1100	25	595	7.5	24.0	1.3	<.5	790	220	216
AUG										
11...	1215	33	560	7.3	18.0	3.7	<.9	--	--	210

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
15...	59	28	72	2.6	210	--	30	92	.3
MAR									
03...	48	21	31	1.5	160	--	40	63	.1
APR									
01...	44	19	27	1.2	140	--	28	50	.2
MAY									
27...	56	24	33	.9	195	<.5	27	64	.2
JUL									
19...	52	21	29	1.0	202	--	7.0	59	.2
AUG									
11...	51	20	26	1.7	177	--	17	55	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
15...	7.1	473	.020	1.1	--	<.05	--	.77	3.7
MAR									
03...	6.4	367	E.020	.80	.110	.46	1.3	.21	3.0
APR									
01...	5.1	311	.010	.50	<.050	E.45	--	.15	3.4
MAY									
27...	5.9	395	.020	.50	.050	E.55	--	.15	6.4
JUL									
19...	11	374	.070	.10	.120	1.40	1.5	.49	7.7
AUG									
11...	10	350	.020	.10	.090	.84	.94	.25	9.7

01368950 BLACK CREEK NEAR VERNON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
27...	1030	<10	2	<10	<10	<1	10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
27...	560	6	90	<.1	<1	<1	10	1

01376800 HACKENSACK RIVER AT WEST NYACK, NY

LOCATION.--Lat 41°05'44", long 73°57'52", Rockland County, Hydrologic Unit 02030103, on right bank 20 ft (6 m) downstream from Penn Central Transportation Co. railroad bridge at West Nyack, 1,000 ft (305 m) upstream from State Highway 59, and 1.0 mi (1.6 km) downstream from DeForest Lake.

DRAINAGE AREA.--29.4 mi^2 (76.1 km^2).

PERIOD OF RECORD.--December 1958 to current year.

GAGE.--Water-stage recorder and stop-log control. Datum of gage is 53.50 ft (16.307 m) National Geodetic Vertical Datum of 1929 (levels by Hackensack Water Co.).

REMARKS.--Records fair. Flow regulated by DeForest Lake (see Reservoirs in Hackensack River Basin). Diversion from gaging station pool for municipal supply for village of Nyack (see Diversions in Hackensack River Basin). Discharge given for this station represents the flow of Hackensack River downstream from this diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft^3/s (43.9 m^3/s) Feb. 3, 1973, gage height, 9.38 ft (2.859 m), from floodmarks, from rating curve extended above 840 ft^3/s (23.8 m^3/s); minimum daily, 2.6 ft^3/s (0.074 m^3/s) June 12, 1965, Sept. 25, 26, 30, 1966; minimum gage height, 1.70 ft (0.518 m) Oct. 22, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 264 ft^3/s (7.48 m^3/s) Apr. 28, gage height, 5.26 ft (1.603 m); minimum discharge, 4.2 ft^3/s (0.119 m^3/s) Jan. 2, Sept. 23; minimum gage height, 2.53 ft (0.771 m) Jan. 2; minimum daily, 6.5 ft^3/s (0.184 m^3/s) Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	8.8	12	19	34	22	31	55	69	66	31	14
2	17	8.8	36	9.4	12	21	28	49	69	44	17	17
3	13	8.3	8.6	10	66	21	44	44	53	33	16	16
4	12	8.0	8.5	97	27	20	209	40	42	32	13	12
5	12	8.4	8.8	27	15	24	107	34	44	23	12	12
6	12	12	9.9	14	12	25	102	30	173	16	13	12
7	13	9.4	9.7	12	12	43	80	28	202	13	11	12
8	13	7.9	12	12	15	77	58	25	91	11	12	12
9	13	8.4	11	12	15	64	53	26	62	10	18	11
10	13	7.9	9.8	12	13	54	56	34	49	9.1	12	11
11	12	7.9	10	12	12	49	58	18	39	9.2	11	11
12	12	7.9	10	11	13	53	56	12	31	46	13	11
13	12	7.4	11	11	15	57	52	16	48	57	11	12
14	11	7.4	11	11	14	55	50	16	197	42	12	12
15	11	7.9	18	11	16	48	42	12	89	30	12	11
16	11	8.4	23	11	23	44	37	9.6	65	22	12	12
17	11	8.4	9.8	12	33	47	35	13	144	16	13	11
18	12	7.9	11	12	32	48	68	12	87	12	12	12
19	17	7.9	14	11	37	43	59	10	58	14	11	12
20	11	9.9	13	11	48	42	50	12	46	24	11	13
21	10	6.5	13	11	48	38	46	12	33	25	12	12
22	9.2	7.4	13	11	48	46	41	12	27	13	11	12
23	14	8.4	16	12	41	46	32	13	25	13	14	16
24	15	8.4	12	13	39	37	27	14	21	13	14	11
25	9.3	7.9	9.1	14	35	30	25	12	15	11	23	12
26	13	8.4	11	12	28	32	45	11	14	12	12	12
27	11	8.4	13	12	26	33	156	11	15	11	14	13
28	11	8.4	11	11	24	30	173	11	12	15	13	9.9
29	9.9	8.4	10	12	---	22	82	89	50	12	13	9.9
30	8.6	8.9	9.9	12	---	17	65	97	115	11	13	9.9
31	8.4	---	9.7	14	---	24	---	80	---	15	13	---
TOTAL	371.4	250.0	384.8	471.4	753	1212	1967	857.6	1985	680.3	425	363.7
MEAN	12.0	8.33	12.4	15.2	26.9	39.1	65.6	27.7	66.2	21.9	13.7	12.1
MAX	17	12	36	97	66	77	209	97	202	66	31	17
MIN	8.4	6.5	8.5	9.4	12	17	25	9.6	12	9.1	11	9.9

CAL YR 1981 TOTAL 4287.6 MEAN 11.7 MAX 86 MIN 5.7
WTR YR 1982 TOTAL 9721.2 MEAN 26.6 MAX 209 MIN 6.5

01377000 HACKENSACK RIVER AT RIVERVALE, NJ

LOCATION.--Lat 40°59'55", long 73°59'27", Bergen County, Hydrologic Unit 02030103, on upstream right bank at bridge on Westwood Avenue in Rivervale, 1.5 mi (2.4 km) upstream from Pascack Brook, 4.6 mi (7.4 km) upstream from Oradell Dam, and 27.2 mi (43.8 km) upstream from mouth.

DRAINAGE AREA.--58.0 mi² (150.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WRD-NJ-80-1: 1968-79(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 22.51 ft (6.861 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated by De Forest Lake and Lake Tappan (see Hackensack River Basin, reservoirs in). Diversions from De Forest Lake and West Nyack, NY, for municipal water supply (see Hackensack River Basin, diversions).

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

AVERAGE DISCHARGE.--41 years, 88.4 ft³/s (2.503 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,160 ft³/s (61.2 m³/s) Sept. 27, 1975, gage height, 7.15 ft (2.179 m); no flow part of Jan. 16, 1970 and May 30, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 716 ft³/s (20.3 m³/s) June 17, gage height, 3.59 ft (1.094 m); minimum daily, 12 ft³/s (0.34 m³/s) Jan. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	24	96	31	67	23	60	104	134	146	30	97
2	73	24	55	25	26	24	54	88	121	96	28	82
3	36	24	36	21	126	24	82	78	99	81	27	64
4	36	24	34	154	49	24	356	69	83	73	26	56
5	35	24	33	41	29	25	236	63	76	57	26	64
6	35	29	33	23	25	25	187	55	165	44	36	73
7	53	25	33	21	23	41	147	51	337	36	48	93
8	87	24	34	19	22	37	113	48	207	34	47	139
9	98	24	35	18	23	27	103	46	120	31	68	136
10	97	25	31	17	23	26	101	49	94	27	32	129
11	96	35	34	17	21	27	103	40	78	25	31	121
12	94	49	33	16	21	31	99	34	65	36	32	121
13	88	54	33	16	21	30	91	43	87	56	43	121
14	82	62	36	17	21	30	86	42	230	61	77	121
15	79	62	73	16	21	28	74	35	221	53	77	121
16	57	62	64	15	23	27	68	31	140	49	76	121
17	31	58	27	15	23	34	64	27	472	61	85	121
18	25	45	24	14	21	31	119	27	222	57	97	119
19	34	20	23	14	24	26	106	27	125	55	115	116
20	24	23	21	13	26	29	92	24	98	69	139	108
21	24	23	19	13	24	62	85	23	78	39	139	67
22	31	20	18	12	23	47	76	23	65	43	139	57
23	35	20	24	15	22	34	65	33	60	54	136	68
24	41	56	22	23	22	42	55	35	51	53	102	47
25	27	64	20	18	22	46	49	32	43	52	79	45
26	40	64	19	16	21	53	77	30	38	52	38	45
27	39	62	21	16	21	54	224	28	37	51	37	48
28	34	62	23	15	21	47	364	27	35	59	62	45
29	28	67	20	14	---	41	192	108	99	30	74	70
30	26	69	20	16	---	38	130	139	276	29	77	104
31	25	---	19	19	---	43	---	155	---	28	95	---
TOTAL	1589	1224	1013	700	811	1076	3658	1614	3956	1637	2118	2719
MEAN	51.3	40.8	32.7	22.6	29.0	34.7	122	52.1	132	52.8	68.3	90.6
MAX	98	69	96	154	126	62	364	155	472	146	139	139
MIN	24	20	18	12	21	23	49	23	35	25	26	45

CAL YR 1981 TOTAL 12484.7 MEAN 34.2 MAX 133 MIN 9.5
WTR YR 1982 TOTAL 22115.0 MEAN 60.6 MAX 472 MIN 12

HACKENSACK RIVER BASIN

01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1964 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB 01...	1100	84	472	7.3	.5	13.1	6.0	920	>2400	67
APR 14...	1100	88	422	8.0	7.0	--	3.6	11	26	110
JUN 08...	1130	209	390	7.7	18.0	8.7	2.0	540	>2400	100
JUL 20...	1130	62	340	7.0	22.5	13.6	6.3	>24000	>2400	94
AUG 11...	1130	31	350	7.2	22.0	6.8	2.7	540	350	110
SEP 29...	1030	42	360	7.1	18.5	8.2	1.7	350	1400	110

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 01...	20	4.1	69	1.8	36	--	19	110	.1
APR 14...	32	6.4	42	1.6	68	--	26	60	.1
JUN 08...	32	6.0	34	2.0	72	<.5	26	60	<.1
JUL 20...	29	5.3	26	1.5	73	--	17	43	.1
AUG 11...	32	6.3	26	1.7	76	--	18	45	<.1
SEP 29...	33	6.1	25	2.2	68	--	20	43	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 01...	4.2	274	--	1.0	--	1.00	2.0	.55	5.4
APR 14...	3.9	235	<.010	.80	.270	.85	1.6	.12	4.4
JUN 08...	1.4	232	.030	.30	.230	.93	1.2	.12	3.4
JUL 20...	2.9	226	.040	.40	.250	.94	1.3	.25	6.2
AUG 11...	3.7	206	.030	.40	.150	.69	1.1	.18	5.5
SEP 29...	2.8	200	<.010	.10	E.050	.76	.86	.18	--

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN 08...	1130	10	1	<10	50	<1	20	11

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN 08...	820	5	200	.2	1	<1	10	<1

01377500 PASCACK BROOK AT WESTWOOD, NJ

LOCATION.--Lat 40°59'33", long 74°01'19", Bergen County, Hydrologic Unit 02030103, on right bank 75 ft (23 m) upstream from Harrington Avenue in Westwood, 500 ft (150 m) downstream from Musquapsink Brook, and 2.3 mi (3.7 km) upstream from mouth.

DRAINAGE AREA.--29.6 mi^2 (76.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 28.62 ft (8.723 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated by Woodcliff Lake 3.0 mi (4.8 km) above station (see Hackensack River Basin, reservoirs in). Water diverted for municipal supply by Spring Valley Water Co., by pumpage from well fields in headwater area of Pascack Brook in vicinity of Spring Valley, NY, and by Park Ridge Water Department by pumping from wells above Woodcliff Lake probably reduces flow past this station.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

AVERAGE DISCHARGE.--48 years, 54.8 ft^3/s (1.552 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft^3/s (69.1 m^3/s) Sept. 12, 1971, gage height, 7.57 ft (2.307 m); minimum, 5.6 ft^3/s (0.16 m^3/s) June 29, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1045	*533	15.1	3.72	1.134
June 29	2045	458	13.0	3.51	1.070

Minimum discharge, 15 ft^3/s (0.42 m^3/s) Mar. 2, gage height, 1.55 ft (0.472 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	27	46	55	103	36	64	26	46	39	60	36
2	52	27	111	43	45	27	60	29	32	27	48	39
3	31	26	38	38	226	42	114	27	26	44	42	44
4	26	39	33	229	87	42	97	37	49	27	41	31
5	23	61	28	48	59	44	50	37	54	33	39	31
6	23	73	25	27	52	43	52	37	132	38	39	30
7	23	64	22	54	46	69	51	41	125	38	38	31
8	22	60	27	63	44	56	52	53	48	37	38	33
9	21	59	26	42	44	46	52	49	27	36	99	33
10	22	48	23	39	42	45	54	43	26	33	61	29
11	21	37	23	39	40	45	54	44	26	29	51	29
12	21	37	23	37	39	49	51	44	25	88	51	28
13	21	37	23	38	39	46	49	51	126	68	42	28
14	21	37	24	38	38	45	49	44	162	33	33	28
15	20	38	61	38	39	43	49	42	54	30	32	28
16	27	41	79	38	41	43	48	40	69	29	32	28
17	64	42	43	36	40	51	48	36	265	30	32	27
18	68	43	39	36	39	45	62	30	64	63	32	27
19	40	37	33	36	46	44	27	28	38	90	31	27
20	23	51	29	37	44	43	25	29	37	125	31	32
21	35	45	28	36	41	44	25	33	37	97	31	31
22	62	38	28	35	40	42	24	36	54	49	30	30
23	65	38	34	39	39	41	23	49	40	44	30	61
24	49	37	40	42	39	41	23	55	46	41	31	30
25	32	36	37	37	38	45	24	62	54	39	61	28
26	55	36	34	36	37	60	53	59	42	37	34	28
27	48	35	36	36	38	58	92	56	42	36	32	32
28	42	35	39	35	37	58	127	57	37	83	32	28
29	33	34	35	35	---	58	94	143	183	60	31	28
30	30	32	32	35	---	57	84	123	217	46	31	27
31	28	---	30	44	---	65	---	74	---	47	30	---
TOTAL	1069	1250	1129	1421	1462	1473	1677	1514	2183	1516	1245	942
MEAN	34.5	41.7	36.4	45.8	52.2	47.5	55.9	48.8	72.8	48.9	40.2	31.4
MAX	68	73	111	229	226	69	127	143	265	125	99	61
MIN	20	26	22	27	37	27	23	26	25	27	30	27

CAL YR 1981 TOTAL 15837 MEAN 43.4 MAX 652 MIN 11
WTR YR 1982 TOTAL 16881 MEAN 46.2 MAX 265 MIN 20

01378500 HACKENSACK RIVER AT NEW MILFORD, NJ

LOCATION.--Lat 40°56'52", long 74°01'34", Bergen County, Hydrologic Unit 02030103, on right bank upstream from two masonry dams and two lift gates at pumping plant of Hackensack Water Co., New Milford, 4.0 mi (6.4 km) downstream from Pascack Brook, and 21.8 mi (35.1 km) upstream from mouth.

DRAINAGE AREA.--113 mi² (293 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October 1921, published in WSP 1302.

REVISED RECORDS: WSP 601: Drainage area. WSP 711: 1927-28(M). WRD-NJ 1970: 1969. WRD-NJ 1977: 1975(M).

GAGE.--Water-stage recorder above south dam. Datum of gage is 6.25 ft (1.905 m) National Geodetic Vertical Datum of 1929. October 1921 to November 23, 1923, nonrecording gage and Nov. 23, 1923, to Sept. 25, 1934, water-stage recorder at same site at datum 0.05 ft (0.015 m) lower.

REMARKS.--Water-discharge records fair except those below 1.0 ft³/s (1.6 m³/s) and those from Oct. 1 to Jan. 4, which are poor. Records given herein do not include diversion at gage. Flow regulated by DeForest Lake, Lake Tappan, Woodcliff Lake 9.0 mi (14.5 km) upstream from station, and Oradell Reservoir 0.6 mi (1.0 km) upstream from station (see Hackensack River Basin, reservoirs in). Water diverted at gage, De Forest Lake, and West Nyack, NY, for municipal supply (see Hackensack River Basin, diversions).

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

AVERAGE DISCHARGE.--61 years, 102 ft³/s (2.889 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s (127 m³/s) Nov. 9, 1977, gage height, 7.95 ft (2.423 m) from high-water mark; no flow many days during most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,310 ft³/s (37.1 m³/s) June 17, gage height, 3.32 ft (1.012 m); no flow part of many days during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	.79	.72	.62	3.7	.41	.37	86	52	46	.87	.47
2	2.8	.65	.84	.95	1.4	.78	.20	41	55	25	.46	.41
3	2.4	.50	.87	1.0	4.7	.51	1.1	22	27	23	.33	.58
4	2.7	.62	.77	1.5	9.6	.26	62	14	24	24	.45	.60
5	2.5	.58	.71	65	38	.30	246	7.8	81	11	.35	.51
6	1.5	.50	.85	30	15	.55	331	.41	216	1.3	.23	.32
7	.51	.48	.93	1.7	.87	.29	64	.21	456	.55	.57	.45
8	.52	.58	.76	.90	.34	.35	93	.77	153	.95	.32	.32
9	.34	.57	.98	.53	.54	.72	108	.27	65	.48	2.2	.35
10	.39	.80	.75	.26	.82	.33	101	.66	28	.49	.57	.44
11	.59	.54	.94	.40	.55	.50	116	.32	25	1.0	.60	.58
12	.49	.60	.71	.74	1.1	.39	98	.19	28	.28	.53	.44
13	.55	.66	.77	.43	.69	.42	70	.25	95	.92	.47	.69
14	.60	.54	.76	.59	.44	.44	57	.32	421	.80	.42	.66
15	.58	.59	.78	.64	.46	.25	42	.45	224	.84	.70	.48
16	.80	.61	.94	.62	.67	.25	27	.54	78	1.0	.52	.91
17	.67	.43	.83	.43	.98	.53	23	.42	979	.43	.41	.99
18	1.0	.50	.74	.44	.51	.29	135	.24	140	.71	.41	.44
19	.66	.65	.73	.49	.89	.29	79	.95	65	1.2	.57	.48
20	.63	.91	.72	1.2	.25	.42	43	1.2	43	1.6	.52	.96
21	.56	.87	.59	1.1	.38	.24	26	.87	15	.75	.49	.62
22	.44	.64	.75	.91	.49	.49	16	.11	.48	.50	.90	.68
23	.90	.85	.72	.82	.72	.50	11	.31	.74	.38	.64	.70
24	1.3	.66	.72	.47	.45	.39	7.1	1.2	.73	.58	.68	.92
25	.69	.60	.87	2.0	.43	.55	2.4	.84	.54	.45	.76	.66
26	.62	1.0	.92	1.8	.50	.47	38	.37	.41	.56	.73	.64
27	.47	.95	1.0	.68	.59	.26	336	.76	.94	.38	.53	.26
28	.52	.81	.79	1.6	.44	.62	538	.71	.56	.70	.29	.12
29	.61	.78	.71	.69	---	.42	229	4.1	33	.41	.44	.22
30	.60	.80	.61	.81	---	.78	158	.62	455	.21	.50	.37
31	.64	---	.98	1.8	---	.85	---	13	---	.96	.38	---
TOTAL	30.08	20.06	24.76	121.12	85.51	13.85	3058.17	200.89	3762.40	147.43	17.84	16.27
MEAN	.97	.67	.80	3.91	3.05	.45	102	6.48	125	4.76	.58	.54
MAX	2.8	1.0	1.0	65	38	.85	538	86	979	46	2.2	.99
MIN	.34	.43	.59	.26	.25	.24	.20	.11	.41	.21	.23	.12

CAL YR 1981 TOTAL 217.80 MEAN .60 MAX 71 MIN .00
WTR YR 1982 TOTAL 7498.38 MEAN 20.5 MAX 979 MIN .11

RESERVOIRS IN HACKENSACK RIVER BASIN, NJ

01376700 DE FOREST LAKE.--Lat 41°06'23", long 73°58'01, Rockland County, NY, Hydrologic Unit 02030103, at dam on Hackensack River, 0.85 mi (1.37 km) north of West Nyack, NY. DRAINAGE AREA, 27.5 mi^2 (71.2 km^2) revised. PERIOD OF RECORD, February 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Total capacity at crest of dam 4,068,000,000 gal (15.40 hm^3), elevation, 80.00 ft (24.384 m). Crest of dam topped by two 50-foot (15.24 m) Bascule gates 5 ft (1.5 m) high. Flow regulated by 12-inch (0.3 m) Howell-Bunger valve at elevation, 59.25 ft (18.059 m) and 24-inch Howell-Bunger valve at elevation, 61.25 ft (18.669 m). Reservoir used for storage and water released by Hackensack Water Co., for municipal water supply. Record of elevation and contents furnished by Hackensack Water Co.

01376950 LAKE TAPPAN.--Lat 41°01'05", long 74°00'05", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River, 0.50 mi (0.80 km) north of Old Tappan. DRAINAGE AREA, about 49.0 mi^2 (127 km^2). PERIOD OF RECORD, October 1966 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam, completed in 1966. Capacity at spillway level, 3,378,000,000 gal (12.79 hm^3), elevation, 55.00 ft (16.764 m). Flow regulated by four Bascule gates and one sluice gate. Water is released by Hackensack Water Co., for municipal water supply. Record of elevation and contents furnished by Hackensack Water Co.

01377450 WOODCLIFF LAKE.--Lat 41°01', long 74°03', Bergen County, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.75 mi (1.21 km) north of Hillsdale. DRAINAGE AREA, 19.4 mi^2 (50.2 km^2). PERIOD OF RECORD, December 1929 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam, completed about 1905. Capacity at spillway level, 835,000,000 gal (3.160 hm^3), elevation, 94.33 ft (28.752 m). Flow is regulated by flashboards and one 36-inch (0.9 m) gate in center of dam. Water is released for diversion at New Milford by Hackensack Water Co., for municipal supply. Record of elevation and contents furnished by Hackensack Water Co.

01378480 ORADELL RESERVOIR.--Lat 40°57', long 74°02', Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell. DRAINAGE AREA, 113 mi^2 (293 km^2). PERIOD OF RECORD, December 1922 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level, 2,850,000,000 gal (10.79 hm^3), elevation, 22.66 ft (6.907 m). Flow regulated by seven sluice gates (7 by 9 ft or 2.1 by 2.7 m). Water is released for diversion by Hackensack Water Co., 1 mi (2 km) downstream from dam for municipal supply. Record of elevation and contents furnished by Hackensack Water Co.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01376700	DE FOREST LAKE †		01376950	LAKE TAPPAN †		01377450	WOODCLIFF LAKE †	
Sept. 30	77.75	3,432	-	46.64	1,306	-	82.95	261	-
Oct. 31	77.76	3,435	+0.2	44.72	875	-21.5	84.61	318	+2.8
Nov. 30	77.46	3,350	-4.4	42.23	424	-23.2	74.15	51	-13.8
Dec. 31	79.31	3,873	+26.1	44.82	896	+23.6	85.52	352	+15.0
CAL YR 1981	-	-	+10.0	-	-	+2.6	-	-	-.8
Jan. 31	82.44	4,857	+49.1	48.88	1,886	+49.4	88.30	467	+5.7
Feb. 28	85.12	5,710	+47.1	52.90	3,122	+68.3	91.86	637	+9.4
Mar. 31	85.12	5,710	0	55.16	3,911	+39.4	88.15	460	-8.8
Apr. 30	85.27	5,760	+2.6	55.30	3,961	+2.6	92.03	646	+9.6
May 31	85.31	5,772	+.6	55.39	3,993	+1.6	92.25	657	+.5
June 30	85.33	5,779	+.4	55.41	4,000	+.4	92.03	645	-.6
July 31	84.86	5,628	-7.5	54.80	3,781	-10.9	89.05	500	-7.2
Aug. 31	84.53	5,517	-5.5	52.45	2,971	-40.4	85.87	365	-6.7
Sept. 30	84.08	5,372	-7.5	48.19	1,699	-65.6	82.27	238	-6.5
WTR YR 1982	-	-	+8.2	-	-	+1.7	-	-	-.1
	01378480	ORADELL RESERVOIR †							
Sept. 30	18.08	2,127	-						
Oct. 31	18.63	2,242	+5.7						
Nov. 30	18.19	2,150	-4.7						
Dec. 31	19.88	2,508	+17.9						
CAL YR 1981	-	-	+5.2						
Jan. 31	20.10	2,555	+2.4						
Feb. 28	21.52	2,868	+17.3						
Mar. 31	21.24	2,805	-3.1						
Apr. 30	23.43	3,581	+40.0						
May 31	23.32	3,550	-1.5						
June 30	23.26	3,534	-.8						
July 31	20.26	2,763	-38.5						
Aug. 31	18.63	2,380	-19.1						
Sept. 30	18.50	2,350	-1.5						
WTR YR 1982	-	-	+1.0						

† Elevation at 0800 on first day of following month.

DIVERSIONS FROM HACKENSACK RIVER BASIN, NJ

01376272 Hackensack Water Co., diverts water from Sparkill Creek at foot of Danny Lane in Northvale, 300 ft (91 m) south of New York-New Jersey state line and 0.6 mi (0.97 km) upstream of Sparkill Brook. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records furnished by Hackensack Water Co.

01376699 Spring Valley Water Co., diverts water at De Forest Lake for municipal supply in Rockland County, NY. Records furnished by Spring Valley Water Co.

01376810 Village of Nyack, NY, diverts water from Hackensack River 100 ft (30 m) downstream from gaging station on Hackensack River at West Nyack, NY (sta 01376800) for municipal supply. Records furnished by Board of Water Commissioners of Nyack, NY.

01378490 Hackensack Water Co., diverts water for municipal supply from Oradell Reservoir at Haworth pumping station 2.0 mi (3.2 km) upstream from gaging station on Hackensack River at New Milford and from Hackensack River about 50 ft (15 m) above gaging station on Hackensack River at New Milford, NJ (sta 01378500).

01378520 Hackensack Water Co., diverts water from Hirshfeld Brook, a tributary of the Hackensack River, below the gaging station on Hackensack River at New Milford, NJ, for municipal supply. Records furnished by Hackensack Water Co.

01391210 Hackensack Water Co., diverts water from Saddle River just north of bridge on State Route 4 at Arcola. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records furnished by Hackensack Water Co.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Month	01376699 SPRING VALLEY WATER CO.	01376810 WEST NYACK, NY	01378490 HACKENSACK WATER CO.
October	10.6	2.12	118
November	5.63	2.02	107
December	3.88	2.03	111
CAL YR 1981	4.92	2.07	110
January	3.94	2.09	133
February	4.11	2.10	140
March	4.33	2.05	134
April	4.69	2.31	134
May	6.06	2.51	141
June	8.92	2.42	143
July	7.49	2.65	164
August	2.46	2.46	153
September	2.24	2.24	144
WTR YR 1982	6.19	2.25	135

Tabulation of diversion by pumpage from sources other than the Hackensack River into Oradell Reservoir. These figures are included in diversions from Hackensack River as noted above.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Month	01376272 SPARKILL CREEK (HUDSON RIVER BASIN)	01378520 HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	01391210 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October	0.41	2.21	7.43	2.70
November	.18	2.25	5.53	2.61
December	2.19	3.06	11.9	2.56
CAL YR 1981.	.93	2.54	12.8	2.01
January	0	.54	2.47	.35
February	0	0	0	0
March	0	0	3.51	0
April	0	0	2.33	0
May	.28	2.28	12.2	1.47
June	.26	.65	4.99	.45
July	.09	1.45	11.0	2.15
August	.18	.87	5.30	.85
September	0	0	.23	0
WTR YR 1982.	.30	1.12	5.65	1.11

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ

LOCATION.--Lat 40°40'48", long 74°31'45", Somerset County, Hydrologic Unit 02030103, on right bank 200 ft (60 m) downstream from Davis Bridge, 0.7 mi (1.1 km) northwest of Millington, and 1.8 mi (2.9 km) downstream from Black Brook.

DRAINAGE AREA.--55.4 mi^2 (143.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1903 to June 1906 (published as "at Millington"), October 1921 to current year. Monthly discharge only for some periods published in WSP 1302.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1905(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 215.60 ft (65.715 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Nov. 25, 1903 to July 15, 1906, nonrecording gage at bridge 0.8 mi (1.3 km) downstream at different datum. Nov. 10, 1921 to Sept. 1, 1923, nonrecording gage at site 200 ft (60 m) downstream at present datum. Oct. 31, 1923 to July 3, 1925, nonrecording gage and concrete control at present site and datum.

REMARKS.--Water-discharge records fair. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, was discontinued in April 1979 and the installation dismantled.

AVERAGE DISCHARGE.--62 years (water years 1905, 1921-82) 89.6 ft^3/s (2.537 m^3/s), 21.95 in/yr (558 mm/yr), adjusted for diversion water years 1970-1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft^3/s (56.6 m^3/s) Jan. 9, 1905, gage height, 7.8 ft (2.38 m) from graph based on gage readings, site and datum then in use, from rating curve extended above 1,400 ft^3/s (39.6 m^3/s) on basis of velocity-area study; maximum gage height, 9.73 ft (2.966 m) Aug. 29, 1971; minimum discharge, 0.2 ft^3/s (0.006 m^3/s) Sept. 12, 13, 1966, gage height, 3.76 ft (1.146 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	Unknown	*882	25.0	7.61	2.320
Feb. 4	1045	829	23.5	7.34	2.237
Apr. 29	0100	632	17.9	6.83	2.082

Minimum discharge, 3.4 ft^3/s (0.096 m^3/s) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	35	12	114	166	58	95	327	100	70	33	11
2	28	29	133	200	282	59	76	216	90	47	28	16
3	22	24	189	149	783	60	111	153	74	47	26	25
4	18	21	163	557	886	49	416	118	59	53	21	23
5	15	18	132	894	751	57	344	98	52	40	24	17
6	13	27	101	822	583	69	294	83	58	33	20	14
7	20	35	65	687	351	98	239	75	74	28	18	14
8	18	27	61	450	193	228	195	67	68	25	16	13
9	16	25	71	276	136	188	180	63	57	23	33	12
10	13	22	54	170	119	154	160	56	49	21	38	11
11	12	19	43	150	97	138	193	49	44	20	24	10
12	12	17	39	92	81	132	191	46	39	20	27	9.4
13	11	14	31	80	74	131	162	45	67	19	24	8.8
14	11	13	26	67	65	128	147	44	251	17	20	7.8
15	10	13	77	52	68	112	121	40	229	17	18	7.5
16	10	15	219	49	101	101	103	37	174	15	17	7.5
17	10	19	259	40	130	110	94	36	265	15	15	7.8
18	14	16	215	36	110	113	196	30	281	14	15	7.4
19	21	14	182	34	104	101	182	26	202	14	14	5.6
20	17	15	135	32	129	90	137	25	155	14	13	7.4
21	14	23	71	31	152	85	115	25	117	19	13	11
22	14	19	48	29	154	85	97	24	86	15	12	11
23	15	17	57	27	137	75	82	27	73	14	11	21
24	32	15	87	35	124	68	72	39	52	14	11	25
25	29	13	84	43	95	63	64	46	36	14	17	15
26	29	12	73	45	74	64	108	48	30	14	19	14
27	47	12	70	41	65	64	439	39	26	23	14	30
28	93	12	83	37	62	54	594	33	25	42	14	47
29	104	11	89	29	---	53	588	120	42	82	12	26
30	69	9.8	79	48	---	51	477	145	104	44	11	19
31	44	---	63	96	---	55	---	101	---	29	11	---
TOTAL	791	561.8	3011	5412	6072	2893	6272	2281	2979	862	589	454.2
MEAN	25.5	18.7	97.1	175	217	93.3	209	73.6	99.3	27.8	19.0	15.1
MAX	104	35	259	894	886	228	594	327	281	82	38	47
MIN	10	9.8	12	27	62	49	64	24	25	14	11	5.6
CFSM	.46	.34	1.75	3.16	3.92	1.68	3.77	1.33	1.79	.50	.34	.27
IN.	.53	.38	2.02	3.63	4.08	1.94	4.21	1.53	2.00	.58	.40	.30

CAL YR 1981 TOTAL 20416.9 MEAN 55.9 MAX 531 MIN 3.6 CFSM 1.01 IN 13.71
WTR YR 1982 TOTAL 32178.0 MEAN 88.2 MAX 894 MIN 5.6 CFSM 1.59 IN 21.61

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1962 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 07...	1045	11	261	7.4	13.0	8.0	1.5	350	240	86
FEB 09...	1215	140	180	7.0	.0	8.2	1.7	70	110	49
APR 01...	1315	100	224	7.7	9.5	9.1	1.4	220	130	66
JUN 03...	1330	--	192	7.2	19.0	5.2	2.5	920	540	60
JUL 15...	1300	17	225	7.4	26.5	4.4	.4	--	--	76
SEP 07...	1030	15	--	7.1	18.0	5.8	1.0	79	<200	90
29...	1030	35	232	7.0	16.5	5.6	1.5	350	790	69

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 07...	21	8.2	22	2.1	58	.1	24	27	.1
FEB 09...	12	4.5	16	1.5	21	--	20	25	<.1
APR 01...	16	6.3	15	1.3	41	--	23	24	<.1
JUN 03...	15	5.5	12	1.0	51	--	13	15	.1
JUL 15...	19	6.9	16	.7	62	--	15	17	.2
SEP 07...	24	7.4	32	3.3	58	--	35	44	.2
29...	17	6.5	16	2.1	47	<.5	24	23	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	12	167	--	.05	--	<.05	--	.52	6.8
FEB 09...	11	104	--	.60	--	.88	1.5	.18	5.9
APR 01...	6.9	128	.010	.30	<.050	E1.00	--	.37	5.7
JUN 03...	13	124	.030	.30	.100	.70	1.0	.83	11
JUL 15...	15	155	<.010	.30	.200	.76	1.1	.55	6.4
SEP 07...	14	240	<.010	.30	E.150	.59	.89	.45	4.3
29...	13	152	<.010	<.10	E.140	.55	--	.40	6.2

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 07...	1045	1430	1.0	5.5	20	2	<1	<10	30	1	<1
SEP 29...	1030	--	--	--	<10	1	--	<10	100	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 07...	20	1	<10	9	8	880	490	3	30	110	880
SEP 29...	10	--	--	5	--	840	--	13	--	110	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 07...	<.1	<.01	4	<10	<1	<1	40	160	<1	10	<1.0
SEP 29...	.1	--	3	--	<1	--	10	--	3	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 07...	<.1	64	16	3.7	59	<.1	.9	<.1	<.1	<.1	<.1
SEP 29...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 07...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
SEP 29...	--	--	--	--	--	--	--	--	--	--	--

01379500 PASSAIC RIVER NEAR CHATHAM, NJ

LOCATION.--Lat 40°43'31", long 74°23'23", Morris County, Hydrologic Unit 02030103, on left bank 150 ft (46 m) downstream from Stanley Avenue bridge in Chatham, and 3.0 mi (4.8 km) upstream from Canoe Brook.

DRAINAGE AREA.--100 mi² (259 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1903 to December 1911, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control since Sept. 19, 1938. Datum of gage is 193.51 ft (58.982 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1911, nonrecording gage at bridge 150 ft (46 m) upstream at different datum.

REMARKS.--Water-discharge records good except those for January and February, which are fair. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, during water years 1903-79.

AVERAGE DISCHARGE.--53 years (water years 1904-11, 1938-82), 169 ft³/s (4.786 m³/s), 22.95 in/yr (583 mm/yr), adjusted for diversion water years 1970-79.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,380 ft³/s (95.7 m³/s) Aug. 2, 1973, gage height, 9.36 ft (2.853 m) from floodmark; minimum, 2.0 ft³/s (0.057 m³/s) many days in May and June 1903, August and October 1905, September and October 1906, and September 11, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1215	*1240	35.1	6.10	1.859	Apr. 28	0030	867	24.6	5.47	1.667
Feb. 3	1245	1190	33.7	6.01	1.832						

Minimum discharge, 16 ft³/s (0.45 m³/s) Sept. 19, 20, gage height, 3.19 ft (0.972 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	79	51	253	270	91	155	555	156	152	45	23
2	60	70	361	375	313	88	141	433	154	95	45	28
3	46	64	366	343	831	90	215	323	142	77	42	62
4	37	56	320	827	867	83	505	220	104	88	39	50
5	29	50	251	1050	957	83	566	159	90	78	48	36
6	28	83	186	1110	915	104	502	131	92	59	42	28
7	41	95	139	1010	859	203	429	113	119	51	35	25
8	34	78	118	875	691	379	372	102	115	45	29	24
9	29	63	129	689	448	360	337	94	98	39	55	24
10	25	57	119	532	335	277	322	85	82	36	64	24
11	24	52	94	345	290	235	347	76	71	33	56	22
12	23	47	83	272	211	226	346	69	65	32	48	21
13	22	43	71	232	123	222	312	66	151	31	41	20
14	21	39	57	185	139	212	266	63	408	30	35	21
15	20	37	206	144	105	185	214	60	400	28	29	20
16	20	44	464	96	139	160	172	54	343	27	27	20
17	20	46	445	75	193	173	149	51	421	26	26	19
18	29	50	413	64	170	185	301	51	395	24	24	18
19	45	45	354	55	174	165	323	47	355	23	23	16
20	35	57	336	48	214	146	257	43	284	25	23	23
21	31	61	246	46	240	135	191	43	204	28	22	27
22	27	61	126	48	257	135	155	42	147	27	21	29
23	43	53	141	53	230	122	130	48	123	24	22	71
24	59	49	231	64	200	108	111	57	101	22	25	68
25	57	45	199	81	161	97	98	88	76	21	51	44
26	75	41	155	75	129	96	188	84	60	29	44	30
27	87	39	147	69	107	96	473	70	51	34	32	68
28	202	38	177	63	100	86	747	58	46	175	26	82
29	173	35	177	57	---	76	754	230	113	194	23	64
30	132	33	158	55	---	72	677	282	183	113	22	45
31	101	---	125	64	---	85	---	207	---	63	21	---
TOTAL	1596	1610	6445	9255	9668	4775	9755	4004	5149	1729	1085	1052
MEAN	51.5	53.7	208	299	345	154	325	129	172	55.8	35.0	35.1
MAX	202	95	464	1110	957	379	754	555	421	194	64	82
MIN	20	33	51	46	100	72	98	42	46	21	21	16
CFSM	.52	.54	2.08	2.99	3.45	1.54	3.25	1.29	1.72	.56	.35	.35
IN.	.59	.60	2.40	3.44	3.60	1.78	3.63	1.49	1.92	.64	.40	.39

CAL YR 1981 TOTAL 39022 MEAN 107 MAX 871 MIN 15 CFSM 1.07 IN 14.52
WTR YR 1982 TOTAL 56123 MEAN 154 MAX 1110 MIN 16 CFSM 1.54 IN 20.88

01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to September 1968.
SUSPENDED-SEDIMENT DISCHARGE: July 1963 to September 1968.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 08...	1130	34	892	7.5	13.0	6.0	7.9	490	20	99
JAN 27...	1200	71	586	7.1	.0	8.2	2.7	20	49	100
APR 01...	1100	162	304	7.7	9.5	9.3	4.8	240	1600	81
JUN 03...	1115	143	317	7.4	19.0	5.1	6.0	1600	350	73
JUL 19...	1215	23	890	7.8	30.0	6.7	3.9	--	--	110
SEP 07...	1230	23	--	7.5	20.0	4.6	4.4	<200	200	79
29...	1315	63	318	7.1	17.5	5.7	20	800	400	82

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 08...	25	8.9	130	5.9	64	<.1	60	180	.2
JAN 27...	25	9.9	76	3.2	53	--	33	120	.1
APR 01...	20	7.5	24	1.7	46	--	30	37	.1
JUN 03...	18	6.7	27	2.1	50	--	26	40	.1
JUL 19...	28	9.5	120	4.5	81	--	13	170	.2
SEP 07...	20	7.1	19	1.2	64	--	19	27	.1
29...	21	7.1	26	3.0	50	<.5	30	35	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 08...	12	482	--	1.7	--	E2.70	--	2.50	7.0
JAN 27...	17	340	--	1.1	--	2.40	3.5	1.20	4.9
APR 01...	8.8	184	.040	.70	.700	E1.10	--	.89	5.6
JUN 03...	15	186	.120	.91	.050	1.50	2.4	1.10	--
JUL 19...	12	513	.330	2.1	.310	1.40	3.5	1.80	5.7
SEP 07...	14	172	.350	1.9	E.830	E1.30	--	1.70	4.3
29...	13	194	.120	.80	E.720	1.80	2.6	1.20	7.0

01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT 08...	1130	12400	.1	13	40	3	0	<10	160	1	<1
JUN 03...	1115	--	--	--	--	1	--	<10	--	<1	--
SEP 29...	1315	--	--	--	10	1	--	<10	130	1	--

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT 08...	10	4	<10	14	14	1700	720	7	40	150	120
JUN 03...	10	--	--	12	--	2400	--	13	--	200	--
SEP 29...	10	--	--	10	--	2200	--	10	--	160	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 08...	.1	<.01	7	<10	<1	<1	40	39	--	44	<1.0
JUN 03...	<.1	--	7	--	<1	--	40	--	--	--	--
SEP 29...	.1	--	8	--	<1	--	30	--	4	--	--

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 08...	<.1	94	25	8.6	7.4	<.1	1.6	<.1	<.1	<.1	<.1
JUN 03...	--	--	--	--	--	--	--	--	--	--	--
SEP 29...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 08...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN 03...	--	--	--	--	--	--	--	--	--	--	--
SEP 29...	--	--	--	--	--	--	--	--	--	--	--

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°54'06", long 74°24'40", Morris County, Hydrologic Unit 02030103, on right bank at Morris Avenue in Boonton, 1.8 mi (2.9 km) upstream from dam at Boonton Reservoir.

DRAINAGE AREA.--116 mi^2 (300 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for October 1937, published in WSP 1302.

REVISED RECORDS.--WRD-NJ 1974: 1938(m). WDR NJ-78-1: 1949(m), 1952(m), 1968(m), 1971(m), 1973(p), 1974(m), 1977(m).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 364.47 ft (111.090 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Flow regulated by Splitrock Reservoir 14.5 mi (23.3 km) above station (see Passaic River Basin, reservoirs in). Town of Boonton diverts water for municipal supply from Taylortown Reservoir on Stony Brook, capacity, 75,000,000 gal (283,900 m^3) and by pumping from wells in vicinity of Boonton. The mean diversion during the water year from Taylortown Reservoir was 0.47 ft^3/s (0.013 m^3/s). Rockaway Valley trunk sewer bypasses the station (see station 01381000).

COOPERATION.--Gage-height record collected in cooperation with Jersey City, Bureau of Water.

AVERAGE DISCHARGE.--45 years, 223 ft^3/s (6.315 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft^3/s (154 m^3/s) Jan. 25, 1979, gage height, 7.06 ft (2.152 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Aug. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 950 ft^3/s (26.9 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	0215	*1780	50.4	5.00	1.524	Apr. 28	1130	1120	31.7	4.13	1.259
Feb. 4	0245	1350	38.2	4.49	1.369	June 17	1145	970	27.5	3.89	1.186

Minimum discharge, 21 ft^3/s (0.59 m^3/s) Oct. 1, gage height, 1.73 ft (0.527 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	107	58	294	139	139	219	482	233	481	80	65
2	101	98	449	383	166	141	185	425	283	314	71	126
3	50	87	298	247	784	143	254	378	228	251	101	207
4	36	73	174	891	1230	137	740	340	206	256	70	129
5	32	64	134	1520	791	159	479	306	192	218	64	89
6	32	100	121	877	614	168	425	274	282	188	60	83
7	37	97	104	677	478	248	420	258	396	165	55	86
8	35	74	109	528	431	431	378	243	298	150	52	84
9	35	64	136	437	388	284	365	228	229	135	409	79
10	33	67	116	288	355	223	353	210	194	120	761	72
11	30	64	99	293	305	221	407	185	171	107	395	61
12	27	60	99	353	278	276	425	170	155	124	241	65
13	26	54	85	439	272	302	383	175	256	132	177	68
14	26	52	77	364	244	303	354	167	669	123	144	68
15	27	48	173	256	246	267	310	153	445	117	123	64
16	38	77	252	214	275	237	287	141	313	108	106	63
17	38	67	184	180	292	298	265	135	793	96	92	66
18	32	59	155	170	242	300	410	125	583	85	82	62
19	69	58	126	160	235	270	365	118	431	79	74	56
20	48	98	111	150	258	251	310	113	360	137	70	60
21	36	115	118	142	266	255	301	119	294	176	65	71
22	31	85	109	130	251	266	273	107	250	123	60	74
23	39	66	146	140	224	239	246	140	233	98	59	143
24	123	61	199	180	209	216	217	165	208	87	76	105
25	82	56	160	160	187	209	203	142	185	78	166	78
26	138	51	132	140	155	256	287	123	169	71	144	72
27	158	50	133	130	152	256	689	108	156	65	97	236
28	304	50	158	120	143	212	972	103	147	168	83	186
29	194	47	143	110	---	194	744	410	301	186	69	119
30	132	45	131	105	---	186	565	386	754	117	64	102
31	112	---	112	110	---	189	---	261	---	91	62	---
TOTAL	2123	2094	4601	10188	9610	7276	11831	6690	9414	4646	4172	2839
MEAN	68.5	69.8	148	329	343	235	394	216	314	150	135	94.6
MAX	304	115	449	1520	1230	431	972	482	793	481	761	236
MIN	22	45	58	105	139	137	185	103	147	65	52	56

CAL YR 1981 TOTAL 49378 MEAN 135 MAX 1690 MIN 20
WTR YR 1982 TOTAL 75484 MEAN 207 MAX 1520 MIN 22

01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°53'47", long 74°23'36", Morris County, Hydrologic Unit 02030103, on right bank 2,000 ft (610 m) downstream from Boonton Reservoir Dam at Boonton.

DRAINAGE AREA.--119 mi^2 (308 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to December 1903; January, February 1904 (gage height only); January 1906 to September 1950 (monthly discharge only, published in WSP 1302) October 1950 to current year (figures of daily discharge for October 1950 to September 1954 published in Special Report 16 of New Jersey Department of Environmental Protection). Published as "near Boonton" 1903-4, and as "at Boonton" 1906-37.

REVISED RECORDS.--WSP 1902: 1951-54. WDR NJ-79-1: 1949(M), 1952(M), 1968(M), 1970-74(M), 1977(M).

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1936. Datum of gage is 195.68 ft (59.643 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Mar. 15, 1903 to Feb. 2, 1904, nonrecording gage at site 1.9 mi (3.1 km) downstream at different datum. Jan. 1, 1906 to Mar. 3, 1918, nonrecording gage on Boonton Dam 2,000 ft (610 m) upstream at datum 305.25 ft (93.040 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records fair. Records represent flow in river only. Sewage effluent enters river about 600 ft (183 m) below station (records given herein). Flow regulated by Boonton Reservoir (see Passaic River Basin, reservoirs in) 2,000 ft (610 m) above station, and by Splitrock Reservoir (see Passaic River Basin, reservoirs in) 16.5 mi (26.5 km) above station. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see Passaic River Basin, diversions).

COOPERATION.--Records of sewage effluent furnished by Jersey City, Bureau of Water.

AVERAGE DISCHARGE.--76 years (water years 1907-82), 136 ft^3/s (3.852 m^3/s), adjusted for sewage effluent since October 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,560 ft^3/s (214 m^3/s), Oct. 10, 1903; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,320 ft^3/s (37.4 m^3/s) Feb. 4, gage height, 4.79 ft (1.460 m); minimum, 7.5 ft^3/s (0.21 m^3/s) Aug. 2,3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	10	11	12	182	53	60	408	165	407	8.9	9.2
2	9.6	9.8	13	10	297	53	9.4	337	173	242	8.7	9.4
3	9.2	9.0	10	10	525	49	14	287	147	163	8.4	9.0
4	9.1	9.1	10	28	1210	47	121	244	120	156	9.1	8.8
5	9.5	9.5	10	107	837	55	380	216	104	142	9.5	8.9
6	9.7	9.8	10	761	546	71	368	188	152	114	9.5	8.8
7	9.6	9.4	10	630	434	107	339	166	256	89	9.5	8.9
8	9.6	9.2	10	477	351	299	292	152	228	58	9.7	8.8
9	9.6	9.4	10	357	308	238	264	140	153	38	14	8.8
10	9.6	9.2	10	245	268	156	248	119	110	23	398	8.9
11	9.5	9.2	10	170	224	131	287	97	79	15	369	8.8
12	9.7	9.3	10	142	191	159	325	85	63	13	185	8.9
13	9.8	9.2	10	138	179	197	307	83	107	16	106	8.9
14	9.6	9.2	10	161	161	216	274	78	451	16	65	8.7
15	9.7	9.3	13	156	152	187	219	71	398	14	42	8.6
16	9.6	9.6	12	136	169	160	205	60	247	10	28	8.6
17	9.6	9.7	10	98	188	189	195	50	550	15	17	9.3
18	10	9.6	10	51	161	215	282	40	535	13	8.8	9.7
19	9.6	9.6	9.7	62	146	189	290	37	345	9.4	9.1	9.8
20	9.6	10	9.5	75	160	167	242	31	268	10	9.4	10
21	9.4	9.6	9.6	67	170	164	218	20	205	9.3	8.7	10
22	9.3	9.6	9.6	54	166	155	195	18	153	11	8.8	10
23	10	9.6	10	66	144	151	174	25	137	9.3	8.9	10
24	9.8	9.6	9.8	103	123	146	143	57	111	8.9	8.8	10
25	9.9	9.6	10	95	109	128	128	59	93	9.6	9.8	10
26	11	9.6	10	74	78	142	160	44	77	8.9	8.9	10
27	11	9.6	10	51	68	164	534	30	63	8.7	9.1	11
28	10	9.5	10	34	58	138	847	20	56	10	8.9	10
29	10	9.5	10	29	---	126	714	195	113	9.7	8.9	10
30	10	9.7	10	30	---	109	498	323	506	9.9	9.2	10
31	10	---	9.9	34	---	111	---	209	---	13	8.9	---
TOTAL	301.8	285.0	317.1	4463	7605	4472	8332.4	3889	6165	1671.7	1423.5	281.8
MEAN	9.74	9.50	10.2	144	272	144	278	125	206	53.9	45.9	9.39
MAX	11	10	13	761	1210	299	847	408	550	407	398	11
MIN	9.1	9.0	9.5	10	58	47	9.4	18	56	8.7	8.4	8.6
(†)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.0

CAL YR 1981 TOTAL 14928.6 MEAN 40.9 MAX 1340 MIN 1.5 † 10.6
WTR YR 1982 TOTAL 39207.3 MEAN 107 MAX 1210 MIN 8.4 † 10.9

† Sewage effluent, in cubic feet per second.

01381200 ROCKAWAY RIVER AT PINE BROOK, NJ

LOCATION.--Lat 40°51'29", long 74°20'53", Morris County, Hydrologic Unit 02030103, at bridge on U.S. Route 46 at intersection with New Road in Pine Brook, and 1.1 mi (1.8 km) upstream of mouth.

DRAINAGE AREA.--136 mi^2 (352 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 25...	1330	150	262	7.8	.0	13.0	1.8	<20	<20
APR 05...	1230	440	238	7.7	6.5	11.8	2.5	11	4
JUN 17...	1300	550	209	7.7	21.0	7.2	2.7	1600	540
JUL 29...	1030	62	295	7.4	21.0	4.6	7.2	--	--
SEP 02...	1100	38	346	7.6	21.0	4.7	7.1	22000	3300

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 25...	63	16	5.6	24	1.8	40	21	41	.1
APR 05...	56	14	5.2	22	1.1	30	17	37	.1
JUN 17...	56	14	5.1	14	1.0	35	16	26	<.1
JUL 29...	87	23	7.1	18	2.6	55	22	31	.2
SEP 02...	98	26	8.1	20	3.1	60	23	34	.6

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 25...	8.8	161	--	.60	--	1.50	2.1	.61	2.4
APR 05...	7.5	125	.020	.50	.270	E.75	--	.21	2.3
JUN 17...	5.9	133	.050	4.0	.300	.73	4.7	.25	5.6
JUL 29...	12	185	.130	2.6	.980	2.00	4.6	1.20	4.6
SEP 02...	12	206	.400	2.1	E2.30	2.70	4.8	1.50	4.0

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ

LOCATION.--Lat 40°48'21", long 74°27'22", Morris County, Hydrologic Unit 02030103, on left bank at Morristown sewage-disposal plant, 0.8 mi (1.3 km) downstream from Morristown, and 9.0 mi (14.5 km) upstream from mouth.

DRAINAGE AREA.--29.4 mi^2 (76.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1921 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1925-27(M) 1928-29, 1930-32(M), 1933-34. WRD-NJ 1974: 1965.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since July 1, 1936. Datum of gage is 260.01 ft (79.251 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to July 16, 1930, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. Flow occasionally regulated by operation of gates in Pocahontas Dam, 2.5 mi (4.0 km) above station.

AVERAGE DISCHARGE.--61 years, 52.0 ft^3/s (1.473 m^3/s) 24.02 in/yr (610 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,280 ft^3/s (64.6 m^3/s) Aug. 28, 1971, gage height, 7.60 ft (2.316 m); minimum, 2.8 ft^3/s (0.08 m^3/s) Aug. 27, 1932, gage height, 0.73 ft (0.223 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft^3/s (12.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1030	*871	24.7	5.14	1.567	May 29	0300	594	16.8	4.35	1.326
Feb. 3	1330	521	14.8	4.13	1.259						

Minimum discharge, 13 ft^3/s (0.37 m^3/s) Oct. 11, Sept. 18, 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	20	41	107	143	41	61	107	47	44	21	24
2	51	19	198	101	86	42	45	97	60	35	21	47
3	21	19	61	47	375	41	119	90	40	36	23	57
4	17	18	35	557	265	38	213	84	36	38	20	21
5	16	18	26	287	129	51	82	78	39	32	21	18
6	20	43	22	108	88	48	84	74	75	30	19	16
7	21	25	20	83	73	106	80	72	87	28	19	16
8	15	19	29	67	67	138	74	68	49	29	19	16
9	15	18	31	57	69	63	76	66	40	27	105	17
10	15	18	23	49	63	54	77	62	35	25	42	16
11	14	18	21	47	55	58	100	57	34	25	27	15
12	15	18	20	45	53	65	94	56	32	28	28	15
13	15	18	19	41	52	65	83	57	123	26	22	15
14	15	17	20	39	49	63	75	53	206	25	20	15
15	15	18	86	37	52	53	64	48	67	24	19	16
16	15	25	116	36	74	52	61	46	65	24	18	16
17	16	20	55	39	71	70	64	45	238	23	18	15
18	27	20	40	32	54	61	138	44	85	21	18	14
19	35	18	29	31	65	54	76	43	59	21	17	14
20	19	33	24	31	74	52	67	42	52	59	17	19
21	17	26	23	30	71	57	69	40	46	34	16	20
22	16	20	24	29	65	56	62	40	43	22	16	22
23	32	18	38	43	57	49	57	55	50	21	18	53
24	46	18	48	60	54	47	54	53	40	21	19	20
25	22	18	32	43	47	45	52	44	37	19	63	16
26	53	17	27	38	42	60	135	38	35	20	24	15
27	63	18	31	34	42	52	282	40	34	23	19	89
28	98	18	39	33	42	43	333	35	34	88	17	28
29	39	16	32	31	---	42	166	197	97	39	15	19
30	26	16	28	30	---	41	124	65	100	24	15	17
31	21	---	25	39	---	54	---	56	---	22	16	---
TOTAL	831	607	1263	2251	2377	1761	3067	1952	1985	933	752	701
MEAN	26.8	20.2	40.7	72.6	84.9	56.8	102	63.0	66.2	30.1	24.3	23.4
MAX	98	43	198	557	375	138	333	197	238	88	105	89
MIN	14	16	19	29	42	38	45	35	32	19	15	14
CFSM	.91	.69	1.38	2.47	2.89	1.93	3.47	2.14	2.25	1.02	.83	.80
IN.	1.05	.77	1.60	2.85	3.01	2.23	3.88	2.47	2.51	1.18	.95	.89

CAL YR 1981 TOTAL 12738 MEAN 34.9 MAX 518 MIN 12 CFSM 1.19 IN 16.12
WTR YR 1982 TOTAL 18480 MEAN 50.6 MAX 557 MIN 14 CFSM 1.72 IN 23.38

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1926, 1962 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
07...	1030	20	334	7.8	13.5	9.9	2.7	40	50	107
FEB										
10...	1015	63	395	7.5	1.5	13.3	5.1	>24000	3500	70
MAR										
30...	1145	41	294	8.7	9.0	16.0	--	5400	540	81
JUN										
10...	1145	36	282	7.8	19.5	9.8	3.0	>24000	>2400	83
JUL										
22...	1045	23	275	7.8	24.5	8.5	3.3	17000	<200	82
AUG										
31...	1045	15	342	8.9	19.0	8.7	1.4	200	140	105
SEP										
30...	1045	17	279	7.7	16.5	9.6	4.8	400	<200	90

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
07...	27	9.6	28	2.7	67	--	26	38	.1
FEB									
10...	18	6.1	41	2.2	41	--	19	79	<.1
MAR									
30...	20	7.5	20	1.5	47	--	22	37	.1
JUN									
10...	21	7.5	17	2.0	51	<.5	20	29	<.1
JUL									
22...	21	7.2	17	2.2	60	--	18	29	.1
AUG									
31...	26	9.7	25	2.3	73	--	23	39	<.1
SEP									
30...	23	8.0	17	2.8	61	<.5	19	29	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
07...	17	194	--	2.3	--	E.60	--	1.40	3.5
FEB									
10...	15	217	--	1.6	.420	.96	2.6	.80	2.9
MAR									
30...	14	188	.080	1.3	<.050	E.95	--	1.10	3.3
JUN									
10...	16	164	.100	1.5	.210	1.30	2.8	.89	2.1
JUL									
22...	14	179	.050	.80	.270	.92	1.7	.77	--
AUG									
31...	15	215	.060	1.7	.100	.45	2.2	1.30	3.7
SEP									
30...	15	186	.080	1.5	.120	.50	2.0	1.00	3.3

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT											
07...	1030	4250	.6	13	--	--	0	--	--	--	<1
JUN											
10...	1145	--	--	--	<10	<1	--	<10	40	<1	--
SEP											
30...	1045	--	--	--	<10	1	--	<10	60	1	--

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
07...	--	3	<10	--	20	--	1400	--	80	--	130
JUN											
10...	10	--	--	13	--	690	--	5	--	70	--
SEP											
30...	10	--	--	10	--	590	--	3	--	50	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
07...	--	<.01	--	<10	--	<1	--	48	--	15	<1.0
JUN											
10...	.4	--	1	--	<1	--	20	--	9	--	--
SEP											
30...	<.1	--	3	--	<1	--	20	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
07...	<.1	41	26	<.1	6.8	<.1	.3	<.1	<.1	<.1	<.1
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--
SEP											
30...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
07...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--
SEP											
30...	--	--	--	--	--	--	--	--	--	--	--

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ

LOCATION.--Lat 40°50'42", long 74°20'51", Morris County, Hydrologic Unit 02030103, at bridge on New Road, 0.3 mi (0.5 km) southwest of overpass of Interstate 280, 0.4 mi (0.7 km) upstream of Rockaway River, and 1.4 mi (2.3 km) southwest of Pine Brook.

DRAINAGE AREA.--68.5 mi² (177.4 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 25...	1130	120	1030	7.4	.0	11.2	5.1	<200	<200
APR 05...	1045	400	228	7.3	3.0	9.5	2.8	170	490
JUN 17...	1030	410	184	7.4	20.5	5.6	7.8	16000	>24000
AUG 03...	1100	41	415	7.6	23.5	5.7	3.3	4100	200
SEP 01...	1030	28	452	7.6	20.0	6.6	4.1	<200	<200

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 25...	130	34	11	180	3.0	67	35	260	.1
APR 05...	62	16	5.3	19	1.5	35	21	32	.1
JUN 17...	54	14	4.6	12	1.6	38	15	16	.2
AUG 03...	120	31	11	28	3.1	80	32	42	.1
SEP 01...	140	35	12	33	3.6	85	37	45	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 25...	15	583	--	1.4	--	2.70	4.1	1.20	6.1
APR 05...	7.9	135	.040	.90	.320	E1.20	--	.45	7.6
JUN 17...	8.6	106	.060	.70	.220	1.19	1.9	.67	8.4
AUG 03...	16	252	.180	2.2	.990	2.10	4.3	1.80	5.5
SEP 01...	15	287	.300	2.6	2.10	2.70	5.3	2.40	5.8

01381900 PASSAIC RIVER AT PINE BROOK, NJ

LOCATION.--Lat 40°51'45", long 74°19'18", Morris County, Hydrologic Unit 02030103, on downstream left wingwall of bridge on U.S. Route 46, 0.5 mi (0.8 km) east of Pine Brook, and 1.3 mi (2.1 km) downstream from Rockaway River.

DRAINAGE AREA.--349 mi^2 (904 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1963-69, 1973, and annual maximum, water years 1966-75, 1978-79. October 1979 to current year. Feb. 19 to Aug. 24, 1939 in files of U.S. Army Corps of Engineers, New York District.

REVISED RECORDS.--WDR NJ-77-1: 1967(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 149.26 ft (45.494 m) National Geodetic Vertical Datum of 1929. December 1965 to September 1979, crest-stage gage at same site at datum 10.00 ft (3.048 m) higher. Feb. 19 to Aug. 24, 1939, water-stage recorder at present NJ Route 506 bridge, 1,600 ft (488 m) upstream from gage, operated by U.S. Army Corps of Engineers, New York District to datum 13.05 ft (3.978 m) higher.

REMARKS.--Water-discharge records good except those for winter months, which are fair. Flow regulated by Boonton and Splitrock Reservoirs (see Passaic River Basin, reservoirs in) and many small lakes. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see Passaic River Basin, diversions).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft^3/s (136 m^3/s) Sept. 12, 1971, gage height, 21.84 ft (6.657 m) present datum; minimum observed, 70 ft^3/s (1.98 m^3/s) Sept. 29, 1980, gage height, 10.15 ft (3.094 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, according to State Geologist in 1904, 23.2 ft (7.07 m) Oct. 10, 1903, present datum, from King Survey of highwater marks at present NJ Route 506 bridge, 1,600 ft (488 m) upstream from gage. Floods of Mar. 13, 1936 and Sept. 24, 1938 reached stages of 20.8 ft (6.34 m) and 19.4 ft (5.91 m) respectively, at present NJ Route 506 bridge and present datum. Flood of July 23, 1945 reached a stage of 22.3 ft (6.80 m) at present site and datum according to U.S. Army Corps of Engineers; minimum observed, 41.1 ft^3/s (1.16 m^3/s) Sept. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 7	1145	2590	73.3	18.49	5.636	Feb. 5	1045	*3180	90.1	18.92	5.767
Feb. 3	1315	2740	77.6	18.61	5.672	Apr. 29	2200	2060	58.3	17.94	5.468

Minimum discharge, 90 ft^3/s (2.55 m^3/s) Oct. 1, 12, 13, gage height, 10.37 ft (3.161 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	228	141	444	1000	410	446	1820	684	994	172	109
2	248	201	778	811	1200	400	363	1590	582	878	149	172
3	203	183	965	759	1600	390	373	1380	541	601	146	337
4	142	167	902	1110	2270	365	1000	1190	443	458	142	240
5	124	158	656	1920	3080	380	1240	1030	370	396	140	157
6	115	236	423	2340	2870	405	1370	823	426	333	187	126
7	136	278	287	2100	2450	480	1380	604	637	275	149	119
8	130	210	263	1950	2200	960	1320	484	682	237	126	121
9	117	194	316	1700	1900	1040	1260	442	540	205	285	116
10	105	184	271	1500	1700	1000	1200	410	392	170	489	114
11	97	177	234	1250	1450	920	1190	367	316	142	645	112
12	92	161	216	1050	1220	830	1200	323	271	137	563	105
13	93	150	199	900	1010	880	1180	301	374	144	364	101
14	94	139	178	710	840	940	1130	290	1010	142	245	104
15	95	133	434	630	545	880	1020	269	1250	133	187	103
16	95	164	930	540	560	740	855	245	1290	125	154	103
17	93	165	1030	435	620	770	710	225	1360	118	143	103
18	98	165	970	360	675	790	829	211	1530	119	129	101
19	216	160	700	300	625	820	974	199	1560	118	117	96
20	168	193	540	275	660	820	956	198	1430	204	114	98
21	127	249	355	265	710	710	859	188	1240	340	112	155
22	115	198	315	240	730	620	698	175	989	191	103	143
23	123	175	302	220	710	500	567	195	722	143	101	207
24	307	159	493	280	650	467	488	272	519	129	117	242
25	237	149	433	400	580	424	429	278	392	117	214	173
26	290	140	335	370	490	415	458	277	315	112	261	136
27	370	134	301	310	465	452	991	242	262	124	161	235
28	512	131	380	260	440	416	1590	211	236	287	128	312
29	533	127	366	222	---	364	1990	577	340	520	114	219
30	377	121	322	196	---	345	2000	908	835	348	106	175
31	274	---	264	205	---	332	---	901	---	234	105	---
TOTAL	5818	5229	14299	24052	33250	19265	30066	16625	21538	8474	6168	4634
MEAN	188	174	461	776	1188	621	1002	536	718	273	199	154
MAX	533	278	1030	2340	3080	1040	2000	1820	1560	994	645	337
MIN	92	121	141	196	440	332	363	175	236	112	101	96

CAL YR 1981 TOTAL 113903 MEAN 312 MAX 2380 MIN 77
WTR YR 1982 TOTAL 189418 MEAN 519 MAX 3080 MIN 92

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ

LOCATION.--Lat 40°53'40", long 74°16'23", Passaic County, Hydrologic Unit 02030103, at bridge on Two Bridges Road in Two Bridges, 50 ft (15 m) upstream from Pompton River.

DRAINAGE AREA.--361 mi^2 (935 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1969 to September 1974.
pH: June 1969 to September 1974.
WATER TEMPERATURES: October 1962 to September 1974.
DISSOLVED OXYGEN: June 1969 to September 1974.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 13...	1300	586	7.5	11.5	4.6	6.2	50	79	134
FEB 16...	1300	352	7.4	3.0	10.0	E2.7	5	170	80
APR 14...	1100	293	7.5	8.5	9.6	3.1	2	5	73
JUN 21...	1215	247	7.3	21.0	3.8	4.4	920	920	66
JUL 27...	1100	700	6.7	25.5	3.2	6.2	540	49	134
AUG 16...	1230	--	6.6	22.5	3.6	3.0	1600	27	101

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 13...	34	12	53	5.3	71	<.1	49	76	.3
FEB 16...	20	7.3	30	2.2	50	--	29	54	1.6
APR 14...	18	6.8	33	1.5	36	--	24	52	.1
JUN 21...	17	5.7	19	1.8	44	--	15	27	<.1
JUL 27...	34	12	53	4.6	86	--	33	76	.2
AUG 16...	26	8.8	29	2.6	60	--	29	44	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	16	354	--	4.1	--	E5.20	--	4.10	6.1
FEB 16...	12	206	--	1.1	1.30	2.10	3.2	1.10	5.6
APR 14...	10	173	.020	.70	.950	1.80	2.5	.70	5.4
JUN 21...	11	144	.100	.70	.380	1.60	2.3	1.00	13
JUL 27...	16	336	.190	2.4	2.70	4.30	6.7	4.40	7.9
AUG 16...	14	201	.230	2.1	2.10	3.60	5.7	1.60	6.3

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 13...	1300	2350	2.0	6.7	10	3	0	<10	260	1	<11

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 13...	20	13	<10	10	20	1100	10000	12	270	9	190

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 13...	.2	<.01	7	10	<1	<1	30	120	<1	300	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 13...	<.1	15	2.6	1.8	2.4	<.1	.7	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 13...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ

LOCATION.--Lat 41°01'00", long 74°23'47", Morris County, Hydrologic Unit 02030103, on left bank at Macopin intake dam of Newark water-works, 0.4 mi (0.6 km) downstream from Macopin River, and 3.0 mi (4.8 km) northwest of Butler.

DRAINAGE AREA.--63.7 mi² (165.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1898 to current year. Monthly discharge only for some periods, published in WSP 1302. Records for January 1892 to December 1897, published in WSP 541, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder above dam. Datum of gage is 570.00 ft (173.736 m) National Geodetic Vertical Datum of 1929 (levels by New Jersey Geological Survey). Prior to May 22, 1970, at datum 13.55 ft (4.130 m) higher.

REMARKS.--Water-discharge records poor. Records given herein represent flow over intake dam only. Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg Reservoirs, and Echo Lake (see Passaic River Basin, reservoirs in). Water diverted at Charlotteburg Reservoir for municipal supply of city of Newark (see Passaic River Basin, diversions).

COOPERATION.--Gage-height record collected in cooperation with the Department of Public Affairs, Division of Water Supply, city of Newark. Prior to May 22, 1970, discharge figures furnished by city of Newark.

AVERAGE DISCHARGE.--84 years, 50.4 ft³/s (1.427 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 6,100 ft³/s (173 m³/s) Oct. 10, 1903, gage height, 17.4 ft (5.30 m) present datum; no flow over dam during several months of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 731 ft³/s (20.7 m³/s) June 17, gage height, 14.52 ft (4.426 m); no flow part of many days during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	1.9	2.1	9.2	15	3.5	2.7	107	6.8	251	1.9	3.1
2	1.9	1.7	24	7.7	4.6	3.2	2.2	86	8.3	301	2.6	5.2
3	.60	1.8	3.2	6.3	33	3.1	10	66	6.8	23	3.0	7.5
4	.99	2.0	3.6	64	21	3.0	14	49	6.3	21	3.2	5.7
5	1.3	3.1	3.5	35	14	3.7	5.8	36	8.4	18	3.2	4.0
6	1.5	2.5	4.8	18	12	3.2	8.0	29	13	14	4.0	3.2
7	.30	.12	4.9	14	8.8	7.9	1.1	27	31	9.3	4.5	3.8
8	.01	.18	3.2	11	8.3	5.7	2.0	24	32	6.9	3.3	2.2
9	.20	1.4	3.3	6.8	8.2	4.6	4.6	23	21	7.4	13	1.9
10	.99	2.1	3.5	7.7	6.6	4.3	6.2	21	16	6.3	18	1.8
11	1.3	1.0	4.2	9.6	6.3	4.6	9.3	17	16	6.3	14	2.1
12	1.8	1.2	4.7	8.7	6.6	5.0	7.5	15	15	8.9	11	2.5
13	1.7	1.6	3.2	8.3	4.7	6.2	7.9	13	25	6.9	7.3	2.7
14	2.1	.98	4.8	6.3	4.7	5.4	5.4	13	138	6.3	5.3	3.2
15	2.6	1.7	5.2	7.4	4.6	4.9	6.3	11	207	6.3	4.0	3.2
16	.97	1.8	4.6	3.8	6.2	4.6	6.3	9.5	137	5.6	3.2	3.1
17	.33	2.6	3.9	5.1	5.2	6.7	6.5	8.3	472	4.3	2.8	2.4
18	1.9	2.9	4.3	6.2	4.6	6.7	17	7.4	402	2.8	2.9	1.8
19	2.0	1.3	5.2	4.6	4.6	6.1	15	5.5	260	3.6	1.8	1.5
20	2.0	1.4	3.2	3.7	4.8	6.3	11	4.1	185	7.6	1.6	2.5
21	2.1	2.0	3.2	3.2	4.6	6.3	7.6	4.4	115	6.0	1.5	3.1
22	2.1	1.7	3.2	3.2	4.5	5.7	6.9	3.7	77	3.8	2.0	3.1
23	3.0	1.3	3.2	5.0	4.4	4.9	7.0	5.4	83	3.2	1.3	3.2
24	3.8	1.8	4.6	4.8	4.5	4.7	6.3	6.3	78	3.3	1.7	2.1
25	3.2	2.2	4.6	3.1	3.3	4.6	6.2	5.7	42	3.2	6.2	1.5
26	4.6	2.9	4.6	2.9	3.3	6.3	8.8	5.2	21	2.8	5.4	2.1
27	5.5	2.1	4.6	3.2	3.2	2.7	13	4.6	18	2.2	4.6	5.5
28	12	1.3	4.6	2.6	3.2	2.4	41	4.6	16	5.4	3.8	6.3
29	3.2	2.1	3.9	2.1	---	4.4	232	28	79	3.1	3.2	6.2
30	2.4	1.3	3.5	4.6	---	4.6	166	17	385	2.5	2.1	4.6
31	2.1	---	3.2	4.5	---	4.6	---	11	---	2.1	1.7	---
TOTAL	68.99	51.98	142.6	282.6	214.8	149.9	643.6	667.7	2920.6	754.1	144.1	101.1
MEAN	2.23	1.73	4.60	9.12	7.67	4.84	21.5	21.5	97.4	24.3	4.65	3.37
MAX	12	3.1	24	64	33	7.9	232	107	472	301	18	7.5
MIN	.01	.12	2.1	2.1	3.2	2.4	1.1	3.7	6.3	2.1	1.3	1.5

CAL YR 1981 TOTAL 1486.61 MEAN 4.07 MAX 146 MIN .00
WTR YR 1982 TOTAL 6142.07 MEAN 16.8 MAX 472 MIN .01

01383500 WANAQUE RIVER AT AWOSTING, NJ

LOCATION.--Lat 41°09'31", long 74°20'00", Passaic County, Hydrologic Unit 02030103, on right bank 700 ft (210 m) downstream from dam at outlet of Greenwood Lake at Awosting.

DRAINAGE AREA.--27.1 mi^2 (70.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1919 to current year. Prior to October 1940, published as "at Greenwood Lake".

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922(M), 1928(M), 1936. WDR NJ-79-1: 1933(M), 1936(M), 1945(M), 1948(P), 1951(P), 1952(P), 1953(M), 1955(P), 1956(M), 1957(M), 1958(M), 1960(P), 1961(M), 1968(P), 1969(P). WDR NJ-80-1: 1960(P).

GAGE.--Water-stage recorder. Concrete control since Oct. 31, 1938. Datum of gage is 601.32 ft (183.282 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Apr. 1, 1926, nonrecording gage and Apr. 1, 1926, to Oct. 31, 1938, water-stage recorder at site 100 ft (30 m) upstream at same datum.

REMARKS.--Water-discharge records good except those below 10 ft^3/s (0.283 ft^3/s), which are fair. Flow completely regulated by Greenwood Lake (see Passaic River Basin, reservoirs in).

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

AVERAGE DISCHARGE.--63 years, 53.5 ft^3/s (1.515 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,160 ft^3/s (61.2 m^3/s) Mar. 22, 1980, gage height, 6.26 ft (1.908 m), from rating curve extended above 750 ft^3/s (21.24 m^3/s) based on theoretical weir formula; no flow at times when gates at Greenwood Lake were closed and water below the spillway.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	1115	*453	12.8	3.67	1.119	June 30	1630	216	6.12	3.11	0.948
Feb. 4	1915	321	9.09	3.39	1.033						

Minimum dishcarge, 2.7 ft^3/s (0.076 m^3/s) Nov. 16, gage height, 1.48 ft (0.451 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.7	8.5	48	44	34	58	77	75	182	37	8.7
2	4.9	3.7	29	67	53	32	55	69	81	137	32	11
3	4.8	3.9	46	70	139	31	61	62	68	109	29	15
4	4.7	3.8	50	172	294	30	126	57	62	94	23	13
5	4.7	3.7	51	429	305	33	126	50	57	75	20	11
6	4.7	3.7	56	387	261	33	136	45	67	61	17	11
7	4.6	4.0	43	306	208	41	134	40	109	51	13	10
8	4.4	3.8	40	234	166	62	101	36	110	46	12	7.3
9	4.4	3.6	47	180	140	62	89	37	99	40	40	6.5
10	4.4	3.3	39	141	119	59	83	33	86	34	60	6.2
11	4.4	3.2	33	109	98	56	89	26	73	28	55	6.2
12	4.3	3.2	28	88	83	61	95	22	63	43	48	6.0
13	4.4	3.0	26	77	72	72	93	24	75	53	39	5.7
14	4.4	3.4	26	70	63	82	93	24	132	46	32	5.6
15	4.4	5.7	38	60	57	83	84	19	130	38	27	5.7
16	4.4	5.1	58	55	55	82	77	16	113	32	22	6.5
17	4.2	7.8	52	52	58	86	73	15	152	27	18	7.8
18	4.2	8.5	48	49	55	88	102	13	149	24	16	6.6
19	4.2	8.5	42	45	56	85	94	11	125	24	12	6.5
20	4.2	8.4	37	40	59	82	84	11	104	55	10	6.2
21	4.2	8.7	33	38	58	79	81	11	83	67	11	6.3
22	4.2	8.6	30	36	56	78	72	9.0	70	54	7.3	7.1
23	4.2	8.6	33	34	52	73	62	9.9	74	44	6.3	7.4
24	4.2	8.6	37	32	49	69	54	8.9	64	37	6.4	7.5
25	4.2	10	39	30	48	64	48	9.2	52	29	17	7.0
26	4.2	8.9	40	28	42	69	53	9.1	46	25	25	7.0
27	4.3	8.2	41	26	38	69	76	8.4	42	21	21	10
28	4.2	9.1	44	25	36	62	104	8.2	39	22	20	12
29	3.9	10	44	25	---	55	94	71	79	21	14	14
30	4.0	9.3	40	23	---	50	87	92	200	16	9.2	12
31	3.8	---	37	23	---	50	---	85	---	16	8.5	---
TOTAL	134.9	184.0	1215.5	2999	2764	1912	2584	1008.7	2679	1551	707.7	252.8
MEAN	4.35	6.13	39.2	96.7	98.7	61.7	86.1	32.5	89.3	50.0	22.8	8.43
MAX	4.9	10	58	429	305	88	136	92	200	182	60	15
MIN	3.8	3.0	8.5	23	36	30	48	8.2	39	16	6.3	5.6

CAL YR 1981 TOTAL 15529.34 MEAN 42.5 MAX 996 MIN .00
WTR YR 1982 TOTAL 17992.60 MEAN 49.3 MAX 429 MIN 3.0

01384000 WANAQUE RIVER AT MONKS, NJ

LOCATION.--Lat 41°07'14", long 74°17'41", Passaic County, Hydrologic Unit 02030103, on left bank just upstream from Wanaque Reservoir and 0.3 mi (0.5 km) downstream from bridge on Stonetown Road at Monks.

DRAINAGE AREA.--40.4 mi^2 (104.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year. Monthly discharge only for October to December 1934, published in WSP 1302.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 303.17 ft (92.406 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Records given herein include flow over spillway, through ports in dam, and down fish ladder in dam. Flow regulated by Greenwood Lake (see Passaic River Basin, reservoirs in).

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

AVERAGE DISCHARGE.--48 years, 81.7 ft^3/s (2.314 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,910 ft^3/s (111 m^3/s) Mar. 21, 1980, gage height, 4.30 ft (1.292 m) from high-water mark; no flow part of day in some years just after waste gate was closed and water was below intake to ports.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	2100	*938	26.6	2.16	0.658
Feb. 4	0530	474	13.4	1.55	0.472

Minimum discharge, 5.8 ft^3/s (0.16 m^3/s) Oct. 1, 9-10, 12-14, 17-18, gage height, 0.15 ft (0.046 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	12	17	91	93	51	90	125	102	233	47	12
2	15	11	118	124	98	50	83	110	118	179	44	17
3	8.1	10	95	110	308	49	122	99	92	148	38	21
4	7.3	9.6	85	469	445	45	248	90	85	133	31	19
5	6.8	9.1	81	627	376	52	201	81	78	104	26	15
6	7.0	12	81	449	319	51	197	72	101	84	24	13
7	7.0	13	67	362	260	79	193	64	196	70	18	12
8	6.3	12	59	289	221	106	157	57	167	61	15	9.4
9	6.3	10	71	235	191	92	141	55	143	54	71	8.1
10	6.2	9.5	58	192	165	87	139	51	121	46	97	7.5
11	6.3	9.1	51	182	139	86	149	43	102	39	77	7.1
12	6.3	8.9	43	156	120	109	151	36	88	105	64	6.9
13	6.0	8.5	40	108	104	123	144	38	130	82	52	6.6
14	6.2	8.2	38	101	91	136	143	37	230	64	42	6.2
15	6.3	9.5	54	90	84	132	129	31	187	52	35	6.2
16	6.3	11	80	74	94	127	116	26	170	44	30	6.2
17	6.2	13	74	70	94	137	110	24	244	38	24	7.8
18	6.6	14	68	67	84	138	178	21	207	33	22	7.6
19	8.4	14	60	62	84	131	147	18	175	29	17	7.1
20	6.9	19	52	62	91	126	131	17	149	90	14	6.9
21	6.7	23	47	61	90	122	123	16	119	100	12	7.4
22	6.5	19	46	52	87	120	109	15	99	74	11	8.0
23	7.6	17	55	49	81	110	95	18	108	57	8.3	11
24	11	16	71	46	77	102	84	19	90	48	8.2	10
25	11	17	67	44	71	96	75	17	74	39	30	8.7
26	14	17	63	42	70	109	91	16	63	33	38	8.2
27	13	15	64	41	56	105	137	14	59	28	29	13
28	57	15	71	39	53	93	196	13	59	32	26	16
29	24	17	68	38	---	84	157	163	173	32	19	17
30	17	16	61	45	---	78	142	139	292	23	13	16
31	14	---	56	37	---	77	---	119	---	19	11	---
TOTAL	323.9	395.4	1961	4414	4046	3003	4178	1644	4021	2173	993.5	317.9
MEAN	10.4	13.2	63.3	142	145	96.9	139	53.0	134	70.1	32.0	10.6
MAX	57	23	118	627	445	138	248	163	292	233	97	21
MIN	6.0	8.2	17	37	53	45	75	13	59	19	8.2	6.2

CAL YR 1981 TOTAL 21313.7 MEAN 58.4 MAX 1130 MIN 1.7
WTR YR 1982 TOTAL 27470.7 MEAN 75.3 MAX 627 MIN 6.0

01384500 RINGWOOD CREEK NEAR WANAQUE, NJ

LOCATION.--Lat 41°07'36", long 74°15'52", Passaic County, Hydrologic Unit 02030103, on right bank 500 ft (150 m) upstream from Wanaque Reservoir, 0.7 mi (1.1 km) downstream from Ringwood Mill Pond Dam, and 6.5 mi (10.5 km) north of Wanaque.

DRAINAGE AREA.--19.1 mi^2 (49.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to September 1978 (discontinued). Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 302.67 ft (92.254 m) National Geodetic Vertical Datum of 1929 (levels by New Jersey Geological Survey).

REMARKS.--Records given herein include flow over spillway and through ports in dam or through waste gate in dam. Flow slightly regulated by Ringwood Mill Pond, Sterling, and Sterling Forest Lakes, and several smaller lakes above station.

AVERAGE DISCHARGE.--44 years, 33.4 ft^3/s (0.946 m^3/s), 23.75 in/yr (603 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,570 ft^3/s (44.5 m^3/s), revised, Mar. 30, 1951, gage height, 3.74 ft (1.140 m) from floodmark; no flow part of day in most years just after waste gage was closed and water was below ports.

REVISIONS.--The peak discharges and annual maximum (*) for many water years have been revised as shown in the following table. They supersede figures published in WSP 1302, 1672, 1722, 1902, 2102 and various annual water data reports.

Water year	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
1935	Jan. 10, 1935	0200	203	5.75	1.51	0.460
1936	Mar. 18, 1936	1300	399	11.3	2.51	.765
1937	Dec. 20, 1936	0800	419	11.9	2.58	.786
	Feb. 22, 1937	0630	*518	14.7	2.84	.866
1938	Nov. 13, 1937	1500	486	13.8	--	--
	Jan. 25, 1938	0700	495	14.0	2.77	.844
	Jun. 27, 1938	2300	364	10.3	2.38	.725
1939	Dec. 6, 1938	0430	*379	10.7	2.44	.744
1940	Mar. 15, 1940	1300	322	9.12	2.18	.664
	Mar. 31, 1940	0400	310	8.78	2.12	.646
	Apr. 8, 1940	2300	*349	9.88	2.31	.704
1941	Feb. 8, 1941	--	*207	5.86	1.52	.463
1942	Sep. 28, 1942	0200	*351	9.94	2.32	.707
1943	Nov. 25, 1942	2200	*355	10.1	2.34	.713
	Dec. 30, 1942	2100	345	9.77	2.29	.698
1944	Nov. 9, 1943	1000	*390	11.0	2.48	.756
1945	Jul. 23, 1945	0500	410	11.6	2.55	.777
1946	May 27, 1946	2000	277	7.84	1.94	.591
	Jul. 23, 1946	1630	*339	9.60	2.26	.689
1947	Mar. 14, 1947	2400	341	9.66	2.27	.692
	Apr. 5, 1947	1800	*371	10.5	2.41	.735
1948	Mar. 16, 1948	2130	*312	8.84	2.13	.649
1949	Dec. 31, 1948	0100	*595	16.9	3.00	.914
	Jan. 6, 1949	0800	385	10.9	2.46	.750
1950	Mar. 23, 1950	1000	270	7.65	1.90	.579
1951	Nov. 25, 1950	2130	347	9.83	2.30	.701
	Dec. 8, 1950	1130	440	12.5	2.65	.808
	Feb. 7, 1951	1800	286	8.10	1.99	.607
	Mar. 30, 1951	2100	*1570	44.5	3.74	1.140
	Apr. 3, 1951	2400	306	8.67	2.10	.640
	Aug. 10, 1951	1800	472	13.4	2.74	.835
1952	Nov. 7, 1951	1230	324	9.18	2.19	.668
	Dec. 21, 1951	1300	443	12.5	2.66	.811
	Apr. 5, 1952	1700	518	14.7	2.84	.866
	Jun. 1, 1952	1630	585	16.6	2.98	.908
	Aug. 17, 1952	0500	281	7.96	1.96	.597
	Sep. 1, 1952	1800	371	10.5	2.41	.735
1953	Nov. 22, 1952	1300	353	10.0	2.33	.710
	Dec. 11, 1952	1600	279	7.90	1.95	.594
	Jan. 24, 1953	1800	*468	13.3	2.73	.832
	Mar. 13, 1953	1300	322	9.12	2.18	0.665
	Mar. 24, 1953	1400	324	9.18	2.19	.668
1955	Aug. 19, 1955	0830	*1270	36.0	3.61	1.100
	Aug. 21, 1955	2200	277	7.85	1.94	.591
1956	Oct. 30, 1955	1500	282	7.99	1.97	.600
	Jul. 9, 1956	1100	264	7.48	1.86	.567
1957	Apr. 6, 1957	1430	*339	9.60	2.26	.689
1958	Dec. 26, 1957	1900	*304	8.61	2.09	.637
	Feb. 28, 1958	0700	419	11.9	2.58	.786
	Apr. 6, 1958	1800	330	9.35	2.22	.677
1960	Oct. 24, 1959	1030	355	10.1	2.34	.713
	Apr. 5, 1960	1400	274	7.76	1.92	.585
	Jul. 30, 1960	1230	410	11.6	2.55	.777
	Sep. 12, 1960	1900	*477	13.5	2.75	.838
1961	Feb. 26, 1961	0400	*472	13.4	2.74	.835
1962	Mar. 12, 1962	1700	*343	9.71	2.28	.695
1963	Nov. 10, 1962	0930	*272	7.70	1.91	.582
1968	May 29, 1968	1130	*1520	43.0	3.72	1.130
1970	Feb. 10, 1970	1815	527	14.9	2.86	.872
1971	Aug. 28, 1971	0800	*570	16.1	2.95	.899
1972	Mar. 3, 1972	0900	270	7.65	1.90	.579
	May 3, 1972	1745	297	8.41	2.05	.625
	Jun. 23, 1972	2030	*349	9.88	2.31	.704
	Jun. 30, 1972	1645	322	9.12	2.18	.664
1973	Nov. 8, 1972	1815	*481	13.6	2.76	.841
	Nov. 14, 1972	1730	310	8.78	2.12	.646
	Feb. 3, 1973	0430	443	12.5	2.66	.811
	Apr. 4, 1973	1945	275	7.79	1.93	.588
	Jun. 30, 1973	1030	440	12.5	2.65	.808
1974	Dec. 21, 1973	0815	*518	14.7	2.84	.866
1975	Jul. 13, 1975	1145	281	7.96	1.96	.597
	Sep. 24, 1975	2230	297	8.41	2.05	.625
	Sep. 27, 1975	0245	*364	10.3	2.38	.725
1976	Jan. 27, 1976	2000	*388	11.0	2.47	.753
	Jun. 30, 1976	2245	349	9.88	2.31	.704
1977	Feb. 25, 1977	0200	570	16.1	2.95	.899
	Mar. 22, 1977	2130	701	19.9	3.16	.963

01387000 WANAQUE RIVER AT WANAQUE, NJ

LOCATION.--Lat 41°02'33", long 74°17'36", Passaic County, Hydrologic Unit 02030103, on left bank 750 ft (229 m) downstream from Raymond Dam in Wanaque, and 50 ft (15 m) upstream from bridge on State Highway 511.

DRAINAGE AREA.--90.4 mi^2 (234.1 km^2), considered as 94 mi^2 (243 km^2) Oct. 1, 1928, to Sept. 30, 1934.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1903 to December 1905 (gage heights only), September 1912 to April 1915, May 1919 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 210.00 ft (64.008 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Dec. 16, 1903, to Dec. 31, 1905, nonrecording gage on highway bridge at site 50 ft (15 m) downstream at different datum. Sept. 15, 1912, to Apr. 1, 1922, nonrecording gage at site 200 ft (61 m) downstream from present concrete control at different datum. Apr. 1, 1922 to Mar. 14, 1931, water-stage recorder at site 400 ft (122 m) downstream from present concrete control at present datum.

REMARKS.--Water-discharge records good. Flow regulated by Greenwood Lake (see Passaic River Basin, reservoirs in) 11 mi (17.7 km) above station, and since 1928 by Wanaque Reservoir (see Passaic River Basin, reservoirs in). North Jersey Water Supply Commission diverts water for municipal supply from Wanaque Reservoir. Water is diverted to Wanaque Reservoir from Post Brook at Wanaque and from Ramapo River at Pompton Lakes (see Passaic River Basin, diversions).

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

AVERAGE DISCHARGE.--65 years, (water years 1913, 1914, 1920-82), 77.2 ft^3/s (2.186 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,470 ft^3/s (240 m^3/s) Mar. 31, 1951, gage height, 9.12 ft (2.780 m), from rating curve extended above 4,300 ft^3/s (122 m^3/s); minimum daily, 0.5 ft^3/s (0.014 m^3/s) Dec. 11, 12, 14-23, 1949, Sept. 11, 12, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 664 ft^3/s (18.8 m^3/s) June 17, gage height, 4.12 ft (1.256 m); minimum, 2.3 ft^3/s (0.065 m^3/s) Mar. 22-24, gage height, 1.00 ft (0.305 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.6	4.2	9.2	5.9	5.2	3.9	179	19	246	18	18
2	4.5	3.2	18	10	3.7	4.2	4.0	153	23	178	18	18
3	4.4	3.2	4.4	11	9.4	8.6	5.2	134	19	147	18	18
4	4.1	3.5	4.4	16	5.6	9.1	4.3	109	18	147	18	18
5	3.7	3.6	4.0	8.8	4.5	7.8	5.3	77	19	110	18	18
6	5.3	3.7	3.6	8.4	4.0	4.0	9.3	58	22	74	18	18
7	11	3.6	3.6	7.5	4.0	4.8	33	39	81	39	18	19
8	6.3	3.6	3.6	6.5	3.8	5.7	17	30	144	25	18	19
9	4.8	3.6	3.6	6.9	3.7	8.7	17	68	149	23	19	19
10	3.9	3.6	3.6	7.3	3.6	6.6	23	51	129	20	22	19
11	3.5	3.6	3.6	8.1	3.6	4.4	30	27	102	20	23	19
12	3.8	3.6	3.6	5.9	3.6	2.9	45	13	74	20	18	19
13	3.7	5.6	3.6	5.2	3.6	2.7	27	13	126	25	18	19
14	17	3.6	3.6	4.0	4.0	2.7	20	18	371	28	18	19
15	5.3	3.6	3.9	4.0	3.9	3.9	6.9	17	301	27	18	19
16	3.9	3.7	4.0	3.9	3.9	7.0	9.7	18	247	25	18	19
17	3.6	3.6	3.6	3.9	3.6	3.7	33	19	568	25	18	19
18	3.6	4.6	3.6	4.0	3.6	3.8	208	18	393	25	18	19
19	4.1	4.0	3.6	3.9	3.9	3.6	216	19	266	25	18	19
20	4.4	6.4	3.6	4.0	4.0	3.6	204	20	220	25	18	19
21	3.8	7.0	3.6	3.9	4.0	3.7	187	20	160	25	18	19
22	3.6	5.1	3.6	3.7	4.0	3.3	151	19	118	21	18	19
23	3.8	5.4	3.8	4.3	4.0	2.3	102	19	108	18	18	19
24	3.2	7.6	3.6	5.6	4.0	4.1	71	26	73	18	18	19
25	2.9	6.6	3.6	5.3	4.1	4.0	56	23	40	18	19	19
26	3.3	4.4	3.6	3.7	3.7	4.0	80	18	26	18	18	19
27	3.2	3.6	3.8	3.6	3.9	4.2	201	18	22	17	18	19
28	3.0	3.8	5.8	3.3	3.9	4.5	325	18	20	19	18	19
29	4.8	3.6	6.3	3.4	---	4.0	257	20	46	18	18	19
30	5.9	3.6	10	3.6	---	4.0	216	18	251	18	18	19
31	4.7	---	9.8	4.9	---	4.0	---	18	---	18	18	---
TOTAL	147.2	128.2	147.2	183.8	117.5	145.1	2567.6	1297	4155	1462	569	564
MEAN	4.75	4.27	4.75	5.93	4.20	4.68	85.6	41.8	139	47.2	18.4	18.8
MAX	17	7.6	18	16	9.4	9.1	325	179	568	246	23	19
MIN	2.9	3.2	3.6	3.3	3.6	2.3	3.9	13	18	17	18	18

CAL YR 1981 TOTAL 2149.3 MEAN 5.89 MAX 139 MIN 1.6
WTR YR 1982 TOTAL 11483.6 MEAN 31.5 MAX 568 MIN 2.3

01387000 WANAQUE RIVER AT WANAQUE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1963 to September 1980.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and selected water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 06...	1200	3.6	147	7.1	14.5	9.1	1.6	5	240	46
FEB 23...	1230	4.0	208	7.6	3.5	12.4	E1.6	<2	<2	51
APR 15...	1230	6.7	155	7.7	8.5	11.6	1.8	<2	<2	48
JUN 23...	1130	121	138	7.6	19.0	9.2	1.8	<2	23	37
AUG 05...	1100	18	152	7.1	9.5	11.3	1.4	<2	5	43
SEP 14...	1115	19	150	7.1	9.5	10.9	.5	5	110	41

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 06...	13	3.4	10	1.0	28	<.1	14	18	<.1
FEB 23...	14	3.9	15	1.0	33	--	17	26	<.1
APR 15...	13	3.8	13	.7	27	--	16	18	<.1
JUN 23...	9.9	3.0	9.8	.7	20	<.5	16	16	<.1
AUG 05...	12	3.2	13	.7	23	--	13	18	<.1
SEP 14...	11	3.2	10	.8	33	--	13	17	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	3.8	76	--	.14	--	E.20	--	.15	.9
FEB 23...	5.8	123	--	.50	.210	.45	.95	.12	1.8
APR 15...	4.8	105	<.010	.30	E.170	.35	.65	<.06	2.8
JUN 23...	1.7	76	<.010	.10	.140	.42	.52	.09	2.5
AUG 05...	5.9	99	<.010	.50	.130	.64	1.1	.06	2.2
SEP 14...	5.7	86	<.010	.31	.130	.50	.81	.15	2.9

01387000 WANAQUE RIVER AT WANAQUE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 06...	1200	291	14	19	10	2	0	<10	190	1	<1
JUN 23...	1130	--	--	--	<10	1	--	<10	20	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 06...	20	10	10	7	73	700	20000	5	90	830	1600
JUN 23...	10	--	--	8	--	120	--	4	--	60	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 06...	.2	.01	4	20	<1	<1	30	610	<1	230	<1.0
JUN 23...	.2	--	3	--	<1	--	30	--	6	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 06...	<.1	17	<.1	1.7	<.1	<.1	<.1	<.1	<.1	<.1	<.1
JUN 23...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 06...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN 23...	--	--	--	--	--	--	--	--	--	--	--

01387420 RAMAPO RIVER AT SUFFERN, NEW YORK

LOCATION.--Lat 41°07'06", long 74°09'38", Rockland County, Hydrologic Unit 02030103, on left bank, 145 ft (44.2 m) downstream from highway bridge on New York State Thruway at Suffern, and 1.1 mi (1.77 km) upstream from Mahwah River.

DRAINAGE AREA.--93.0 mi^2 (241 km^2).

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Concrete control. Datum of gage is 264.44 ft (80.601 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter periods and period of questionable gage height record, Aug. 9 to Sept. 12, which are poor. Flow affected by diversion from Spring Valley Water Company well field upstream from station and by occasional regulation by Lake Sebago.

COOPERATION.--Figures of pumpage from well field furnished by Spring Valley Water Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 5,160 ft^3/s (146 m^3/s) Mar. 22, 1980 (gage height about 11.1 ft or 3.38 m) from rating curve extended above 1,800 ft^3/s (51 m^3/s) on basis of runoff comparison with station 1.5 mi (2.4 km) upstream; minimum 2.6 ft^3/s (0.07 m^3/s) Sept. 30, 1981, gage height, 1.23 ft (0.375 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft^3/s (31.2 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	0830	*2,330	66.0	*7.61	2.320	Feb. 4	0745	1,630	46.2	6.33	1.929

Minimum discharge, 4.0 ft^3/s (0.11 m^3/s) Oct. 1, gage height 1.28 ft (0.390 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	45	39	180	200	76	148	243	240	269	235	23
2	51	41	240	325	375	72	155	213	302	150	119	58
3	37	36	232	269	898	70	257	195	287	115	70	70
4	21	33	161	998	1510	67	784	173	235	109	50	54
5	17	26	131	2120	967	72	585	157	195	96	42	42
6	16	36	113	1170	645	85	441	137	315	75	37	34
7	15	45	93	745	453	117	386	125	693	65	31	30
8	15	40	87	533	338	275	338	109	628	57	31	27
9	14	33	96	383	278	173	302	102	369	47	240	24
10	13	29	87	220	237	131	284	89	246	41	300	20
11	12	28	79	150	195	127	322	74	168	37	210	17
12	12	26	74	130	173	188	325	65	125	115	120	15
13	11	24	67	120	168	293	299	79	188	115	86	14
14	11	23	61	110	140	290	269	79	550	74	68	13
15	11	23	87	100	150	246	224	61	423	53	54	13
16	11	27	127	98	170	216	195	51	296	45	47	18
17	10	29	111	96	190	216	188	45	441	39	41	19
18	11	30	96	94	160	249	351	40	348	35	37	18
19	17	30	85	90	140	235	322	34	263	30	32	14
20	17	39	83	86	160	218	243	30	213	74	28	14
21	15	57	85	82	170	198	208	31	173	166	26	18
22	14	55	72	75	150	200	190	33	150	85	24	20
23	15	49	91	91	130	183	173	36	159	57	21	28
24	33	44	142	137	120	171	164	57	148	46	20	30
25	34	44	144	117	110	155	152	55	119	37	45	23
26	36	40	139	96	98	164	190	44	102	30	120	19
27	61	39	135	84	88	188	372	37	91	27	74	30
28	109	39	150	78	80	152	383	30	96	30	52	36
29	85	37	139	72	---	127	318	554	137	38	39	28
30	65	37	127	65	---	123	284	476	376	28	32	21
31	55	---	113	75	---	123	---	293	---	25	26	---
TOTAL	853.0	1084	3486	8989	8493	5200	8852	3747	8076	2210	2357	790
MEAN	27.5	36.1	112	290	303	168	295	121	269	71.3	76.0	26.3
MAX	109	57	240	2120	1510	293	784	554	693	269	300	70
MIN	9.0	23	39	65	80	67	148	30	91	25	20	13
*	0.0	6.3	7.2	7.8	9.8	14	14	14	6.9	10	8.8	8.5

CAL YR 1981 TOTAL 38885.8 MEAN 107 MAX 2370 MIN 3.7
WTR YR 1982 TOTAL 54137.0 MEAN 148 MAX 2120 MIN 9.0

* Diversion, in cubic feet per second, by pumpage from well field upstream of station.

PASSAIC RIVER BASIN

01387450 MAHWAH RIVER NEAR SUFFERN, NY

LOCATION.--Lat 41°08'27", long 74°07'01", Rockland County, Hydrologic Unit 02030103, on left bank 13 ft (4 m) upstream from bridge on U.S. Highway 202, 2.5 mi (4.0 km) northeast of Suffern, and 4.8 mi (7.7 km) upstream from mouth.

DRAINAGE AREA.--12.3 mi² (31.9 km²).

PERIOD OF RECORD.--August 1958 to current year.

REVISED RECORDS.--WRD NY-79-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 321.57 ft (98.015 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1976, water-stage recorder at site on right bank 13 ft (4 m) downstream, at present datum.

REMARKS.--Records fair except those during winter periods, which are poor. Occasional regulation from unknown source.

AVERAGE DISCHARGE.--24 years, 24.4 ft³/s (0.691 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft³/s (52.1 m³/s) Nov. 8, 1977, gage height, 9.91 ft (3.021 m), from rating curve extended above 850 ft³/s (24.1 m³/s) on basis of contracted-opening measurements at gage heights 8.52 ft (2.597 m) and 9.91 ft (3.021 m); minimum 0.05 ft³/s (0.001 m³/s) Oct. 20, 21, 1970, result of temporary pumping from gage pool.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.67 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1445	*411	11.6	*4.77	1.454	May 29	1100	227	6.4	3.87	1.180
Feb. 3	1730	225	6.4	3.86	1.177						

Minimum discharge, 0.71 ft³/s (0.01 m³/s) Oct. 1, gage height, 1.29 ft (0.393 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	4.7	4.7	33	15	9.2	19	36	34	21	54	4.0
2	12	4.0	57	42	30	9.0	16	31	54	15	14	12
3	2.6	3.5	35	31	100	9.2	34	27	41	14	9.1	11
4	1.6	3.4	24	195	153	10	83	24	34	13	6.2	6.6
5	1.2	3.1	18	195	92	11	53	22	37	12	5.4	5.4
6	1.3	4.8	15	95	62	12	46	20	92	11	4.7	4.5
7	1.4	5.6	13	66	47	24	39	18	106	10	4.5	3.7
8	1.5	4.8	13	51	39	31	35	17	72	9.1	4.2	3.4
9	1.3	4.2	13	41	34	19	35	16	50	8.0	19	3.2
10	1.2	3.7	11	25	30	17	36	14	39	7.0	13	3.0
11	1.4	3.4	9.7	18	24	18	39	13	33	6.8	9.1	2.7
12	1.3	3.1	8.8	16	21	25	36	13	28	34	7.5	2.6
13	1.4	3.0	8.0	15	19	27	33	15	53	16	6.2	2.6
14	1.7	3.0	7.8	14	17	25	30	13	89	11	5.2	2.5
15	1.8	3.0	14	13	18	23	26	11	55	8.3	4.7	2.3
16	1.8	3.2	35	12	25	22	24	10	45	7.0	4.0	2.2
17	1.8	3.1	21	12	25	25	23	9.4	79	6.4	4.2	2.2
18	2.1	3.5	17	11	19	25	49	8.5	49	5.8	4.3	2.1
19	3.2	3.5	15	11	19	24	37	8.0	40	5.2	3.7	1.9
20	3.4	5.0	13	11	22	22	30	7.8	34	16	3.4	2.2
21	3.4	6.4	12	10	23	22	28	7.3	29	10	3.4	4.3
22	2.8	5.4	12	11	20	22	24	7.0	24	7.3	3.0	3.8
23	3.5	4.8	16	12	18	19	22	8.8	27	5.8	2.8	6.0
24	9.1	4.5	24	15	17	18	20	12	20	5.2	2.8	3.4
25	3.8	4.3	21	13	15	17	18	10	17	4.5	30	7.5
26	6.0	4.0	17	11	11	19	39	8.5	15	4.2	13	5.0
27	6.4	4.0	17	10	10	18	66	7.3	15	4.0	8.5	3.5
28	13	3.8	21	9.4	9.4	16	65	6.6	15	6.6	6.2	3.2
29	8.3	3.7	17	9.1	---	15	50	83	33	5.6	4.8	2.5
30	6.6	3.5	16	8.8	---	15	41	44	38	4.5	3.8	2.6
31	5.2	---	14	10	---	16	---	40	---	7.8	3.5	---
TOTAL	113.7	120.0	540.0	1026.3	934.4	584.4	1096	568.2	1297	302.1	268.2	121.9
MEAN	3.67	4.00	17.4	33.1	33.4	18.9	36.5	18.3	43.2	9.75	8.65	4.06
MAX	13	6.4	57	195	153	31	83	83	106	34	54	12
MIN	1.2	3.0	4.7	8.8	9.4	9.0	16	6.6	15	4.0	2.8	1.9

CAL YR 1981 TOTAL 5717.94 MEAN 15.7 MAX 385 MIN .48
WTR YR 1982 TOTAL 6972.20 MEAN 19.1 MAX 195 MIN 1.2

01387500 RAMAPO RIVER NEAR MAHWAH, NJ

LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, Hydrologic Unit 02030103, on left bank 350 ft (107 m) downstream from State Highway 17, 0.6 mi (1.0 km) downstream from Mahwah River, and 1.0 mi (1.6 km) west of Mahwah. Water-quality samples collected at bridge 350 ft (107 m) upstream from gage at high flows.

DRAINAGE AREA.--120 mi^2 (311 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1902 to December 1906, September 1922 to current year (October 1902 to February 1905 monthly discharge only, published in WSP 1302). Figures of daily discharge Feb. 10, 1903, to Dec. 31, 1904, published in WSP 97, 125, are unreliable and should not be used.

REVISED RECORDS.--WSP 781: 1904(M). WSP 1031: 1938, 1940. WSP 1552: 1923(M), 1924, 1925-26(M), 1927-28, 1933, 1937. WRD-NJ 1971: 1968(M).

GAGE.--Water-stage recorder. Datum of gage is 253.10 ft (77.145 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1906, nonrecording gage on former bridge at site 250 ft (76 m) downstream at different datum. Sept. 1, 1922 to Dec. 23, 1936, water-stage recorder just below former bridge at present datum.

REMARKS.--Water-discharge records fair. Occasional regulation from lakes and ponds upstream from the station.

AVERAGE DISCHARGE.--64 years (water years 1903-06,1923-82), 228 ft^3/s (6.457 m^3/s), 26.24 in/yr (666 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,400 ft^3/s (352 m^3/s) Oct. 9, 1903, gage height, 11.0 ft (3.35 m) from graph based on once-daily gage readings, site and datum then in use, from rating curve extended above 1,400 ft^3/s (39.6 m^3/s); maximum gage height at present site and datum, 12.53 ft (3.819 m) Oct. 16, 1955; minimum discharge, 4.6 ft^3/s (0.13 m^3/s) Sept. 30, 1981 (possible regulation); minimum daily discharge, 6.1 ft^3/s (0.17 m^3/s) Sept. 30, 1981 (possible regulation).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft^3/s (39.6 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)
Jan. 5	0700	*2520	71.4	8.40	2.560
Feb. 4	0645	1850	52.4	7.70	2.347

Minimum discharge, 5.7 ft^3/s (0.16 m^3/s) Oct. 1, gage height, 2.14 ft (0.652 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	74	67	261	458	143	210	315	308	311	333	45
2	121	67	385	409	434	142	204	283	416	219	156	72
3	65	56	351	338	1220	141	312	255	363	176	102	73
4	38	48	258	1180	1720	133	828	230	270	167	76	52
5	29	44	208	2290	1050	142	604	211	237	135	64	42
6	28	64	179	1190	687	150	480	189	453	111	54	38
7	26	73	149	705	499	199	422	173	828	94	48	36
8	25	63	137	521	399	325	367	159	716	82	49	33
9	24	54	150	406	347	229	338	149	457	69	284	32
10	21	49	136	338	311	192	322	138	317	61	331	28
11	19	45	118	311	264	191	363	124	250	43	195	26
12	18	42	105	266	236	256	357	105	214	197	131	23
13	17	41	95	227	221	321	330	105	311	161	102	23
14	16	39	89	234	203	310	305	101	687	93	83	22
15	17	37	161	215	196	283	270	88	523	80	71	22
16	16	46	258	199	222	266	247	79	392	61	61	27
17	16	48	207	189	254	281	237	72	590	53	53	29
18	26	49	173	180	217	289	429	67	429	44	51	26
19	33	47	148	166	206	273	376	63	313	41	44	23
20	32	70	125	160	219	258	310	59	263	136	38	28
21	29	90	113	149	227	251	289	61	224	223	34	34
22	25	84	114	136	214	250	256	59	198	113	30	37
23	41	73	156	151	198	229	237	68	214	79	27	50
24	79	67	244	191	189	216	228	86	186	63	28	44
25	65	62	229	166	174	205	214	80	155	51	122	37
26	81	55	199	147	161	220	295	69	139	43	120	32
27	116	56	189	136	153	231	528	60	137	41	67	55
28	198	54	207	122	147	199	524	79	131	65	53	48
29	148	52	186	116	---	180	411	654	229	64	44	40
30	108	52	180	109	---	172	350	540	425	47	39	36
31	87	---	167	138	---	177	---	357	---	48	35	---
TOTAL	1590	1701	5483	11346	10826	6854	10643	5078	10375	3171	2925	1113
MEAN	51.3	56.7	177	366	387	221	355	164	346	102	94.4	37.1
MAX	198	90	385	2290	1720	325	828	654	828	311	333	73
MIN	16	37	67	109	147	133	204	59	131	41	27	22
CFSM	.44	.48	1.50	3.10	3.28	1.87	3.01	1.39	2.93	.86	.80	.31
IN.	.50	.54	1.73	3.58	3.41	2.16	3.36	1.60	3.27	1.00	.92	.35

CAL YR 1981 TOTAL 50747.0 MEAN 139 MAX 2620 MIN 6.1 CFSM 1.18 IN 16.00
WTR YR 1982 TOTAL 71105.0 MEAN 195 MAX 2290 MIN 16 CFSM 1.65 IN 22.42

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: February 1964 to June 1965.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 05...	1100	31	460	7.5	12.5	7.6	6.5	110	170
FEB 23...	1030	200	363	7.7	2.5	13.0	2.3	20	7
APR 15...	1045	273	256	7.9	8.0	12.9	2.8	2	14
MAY 18...	0900	69	345	7.7	17.0	6.8	--	--	--
AUG 04...	1100	77	280	7.5	21.5	7.9	1.9	110	33
SEP 08...	1100	34	380	7.7	17.5	6.6	2.9	<200	<200

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	120	32	9.3	44	2.3	73	32	66	.2
FEB 23...	70	19	5.4	30	1.1	42	20	56	<.1
APR 15...	66	18	5.1	25	.8	35	19	43	<.1
MAY 18...	100	28	8.0	26	1.2	70	19	47	.1
AUG 04...	78	22	5.5	23	1.1	49	17	39	.1
SEP 08...	96	26	7.5	33	1.4	71	20	55	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	8.0	266	--	1.7	--	E1.90	--	1.10	3.2
FEB 23...	6.2	193	--	.80	.450	.76	1.6	.31	2.5
APR 15...	4.6	161	<.010	.40	E.440	.70	1.1	.18	3.3
MAY 18...	4.8	196	.030	.85	.280	.67	1.5	--	3.2
AUG 04...	7.5	168	.030	.70	.390	1.30	2.0	.44	6.1
SEP 08...	7.2	207	.050	1.3	E.230	1.10	2.4	.49	3.7

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
MAY								
18...	0900	20	1	<10	10	<1	10	6

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
18...	350	2	160	.2	3	<1	20	4

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ

LOCATION.--Lat 40°59'33", long 74°16'44", Passaic County, Hydrologic Unit 02030103, on right end of dam at pumping station in Pompton Lakes and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--160 mi² (414 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 1552: 1922(M), 1924-25, 1929-31(M), 1934-35(M). WRD-NJ 1970: 1968-69.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 191.08 ft (58.241 m) National Geodetic Vertical Datum of 1929. Prior to October 1, 1981, at datum 10.00 ft (3.048 m) higher.

REMARKS.--Water-discharge records good. Diversion by North Jersey Water Supply Commission to Wanaque Reservoir since December 1953, for municipal supply (records given herein). Slight regulation by Pompton Lake, capacity, 300,000,000 gal (1.136 hm³).

AVERAGE DISCHARGE.--61 years, 300 ft³/s (8.496 m³/s), 25.47 in/yr (647 mm/yr), adjusted for diversion since Dec. 1, 1953.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft³/s (348 m³/s) Mar. 12, 1936, gage height, 13.56 ft (4.133 m), present datum from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of theoretical weir formula; maximum gage height, 14.40 ft (4.389 m) Oct. 16, 1955, present datum; no flow part of September 30, 1980 and many days in 1981, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft³/s (45.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 5	1045	*2590	73.3	11.73	3.575
Feb. 4	1600	1980	56.1	11.47	3.496

No flow part or all of many days October through February.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	81	69	99	.00	160	299	459	425	522	209	58
2	102	75	331	315	.00	155	292	409	465	322	225	115
3	88	72	268	264	1380	153	371	365	476	251	139	136
4	57	63	146	1120	1890	145	1040	327	379	242	107	99
5	46	58	74	2450	1420	154	895	297	325	204	89	76
6	42	74	37	1680	844	165	691	279	538	173	72	64
7	38	82	10	921	552	217	603	272	933	153	63	60
8	34	76	.00	604	402	429	515	245	988	134	59	58
9	32	70	.00	414	323	339	481	206	687	114	318	52
10	31	61	.00	292	270	262	452	184	486	101	404	47
11	30	60	.00	189	198	248	515	162	374	87	262	41
12	28	55	.00	133	151	290	518	148	315	156	190	37
13	27	52	.00	87	125	394	476	159	382	244	151	34
14	27	50	.00	88	98	400	441	162	936	157	124	34
15	27	47	11	89	81	346	386	143	813	129	103	34
16	25	52	167	75	110	263	346	120	599	105	87	34
17	23	56	111	53	161	288	324	108	1100	89	76	34
18	29	58	51	17	126	316	549	103	757	80	67	34
19	50	56	23	27	102	286	550	96	526	72	63	33
20	38	37	1.3	24	122	204	436	94	419	121	57	35
21	34	.00	.00	13	133	185	386	89	342	259	51	45
22	34	.00	.00	.40	122	248	344	91	296	175	46	49
23	42	.00	3.1	.00	96	222	310	101	304	126	44	59
24	86	.00	71	54	80	195	293	125	285	100	50	43
25	76	.00	84	42	67	183	271	132	242	83	124	30
26	98	54	58	10	127	202	332	118	208	72	215	21
27	114	72	45	.06	179	170	749	105	193	63	124	45
28	147	69	74	.00	168	124	850	96	196	105	89	61
29	1.4	65	60	.00	---	180	651	637	410	110	70	59
30	.00	63	42	.00	---	250	525	802	726	85	61	59
31	29	---	25	.00	---	256	---	526	---	69	56	---
TOTAL	1459.40	1558.00	1761.40	9060.46	9327.00	7429	14891	7160	15125	4703	3795	1586
MEAN	47.1	51.9	56.8	292	333	240	496	231	504	152	122	52.9
MAX	147	82	331	2450	1890	429	1040	802	1100	522	404	136
MIN	.00	.00	.00	.00	.00	124	271	89	193	63	44	21
(†)	12.4	15.9	151	168	150	51.6	0	0	0	0	0	0
MEAN‡	59.5	67.8	208	460	483	292	496	231	504	152	122	52.9
CFSM‡	0.37	0.42	1.30	2.88	3.02	1.82	3.10	1.44	3.15	0.95	0.76	0.33
IN‡	0.43	0.47	1.50	3.31	3.14	2.10	3.46	1.66	3.51	1.10	0.88	0.37

CAL YR 1981 TOTAL 43868.91 MEAN 120 MAX 3250 MIN 0 MEAN‡ 180 CFSM‡ 1.12 IN‡ 15.31
WTR YR 1982 TOTAL 77855.27 MEAN 213 MAX 2450 MIN 0 MEAN‡ 258 CFSM‡ 1.61 IN‡ 21.91

† Diversion, in cubic feet per second, at station to Wanaque Reservoir for municipal supply. Records of diversion furnished by North Jersey District Water Supply Commission.

‡ Adjusted for diversion.

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ

LOCATION.--Lat 40°58'09", long 74°16'56", Passaic County, Hydrologic Unit 02030103, 800 ft (240 m) below confluence of Pequannock and Ramapo Rivers, 100 ft (30 m) upstream from Jackson Avenue Bridge, and 0.7 mi (1.1 km) east of Pompton Plains.

DRAINAGE AREA.--355 mi^2 (919 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1903 to December 1904, May 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1202: 1945(M).

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 160.00 ft (48.768 m) National Geodetic Vertical Datum of 1929. March 1903 to December 1904, nonrecording gage on main spillway of dam 2,000 ft (610 m) upstream at different datum. May 1940 to September 1964 two water-stage recorders, each above a concrete dam about 2,000 ft (610 m) upstream at datum 14.46 ft (4.407 m) higher.

REMARKS.--Water-discharge records fair except those between 300 ft^3/s (8.496 m^3/s) and 1,500 ft^3/s (42.480 m^3/s), which are poor. Water diverted from reservoirs on Pequannock and Wanaque Rivers, from Pompton River to Point View Reservoir and from Ramapo River to Wanaque Reservoir for municipal supply (see Passaic River Basin, diversions). Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg and Echo Lake Reservoirs on Pequannock River and by Greenwood Lake and Wanaque Reservior on Wanaque River (see Passaic River Basin, reservoirs in). Some diurnal fluctuations at low flow caused by powerplant on Wanaque River.

COOPERATION.--Gage-height record collected in cooperation with Passaic Valley Water Commission.

AVERAGE DISCHARGE.--43 years, (water years 1904, 1941-82), 475 ft^3/s (13.45 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 28,340 ft^3/s (803 m^3/s) Oct. 10, 1903, gage height, 14.3 ft (4.36 m) site and datum then in use, by computation of peak flow over dam; no flow Aug. 18-20, 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,200 ft^3/s (90.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	0215	*3880	110	13.34	4.066

Minimum discharge, 34 ft^3/s (0.96 m^3/s) Nov. 24, 25,26, gage height, 7.11 ft (2.167 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	112	98	207	457	228	330	924	499	1310	234	103
2	154	103	521	439	444	231	323	780	594	951	275	186
3	114	94	377	392	1580	226	473	658	558	490	184	217
4	78	86	232	1820	2500	214	1400	540	445	460	147	153
5	67	84	132	3470	1900	231	1170	460	398	390	129	123
6	65	111	84	2230	1180	244	891	419	757	332	116	109
7	63	113	55	1290	740	316	806	396	1420	275	107	105
8	59	103	46	831	508	548	641	359	1460	237	100	111
9	52	92	47	530	430	431	590	340	1070	202	518	102
10	50	84	44	399	383	356	561	320	716	177	490	94
11	51	79	40	279	311	339	673	272	519	159	341	88
12	51	75	39	223	258	389	689	230	430	232	271	85
13	48	72	40	178	225	482	615	235	645	327	215	85
14	49	71	38	182	185	482	554	246	1810	247	175	83
15	54	71	69	178	162	417	462	218	1670	203	150	80
16	49	71	246	139	208	339	424	188	1280	175	132	79
17	44	75	173	102	267	368	412	176	2440	155	121	79
18	51	77	104	70	221	391	934	164	1950	143	118	78
19	81	76	70	76	195	357	940	154	1390	130	107	74
20	61	76	52	78	227	298	759	155	1080	229	99	80
21	58	45	49	69	242	278	637	148	775	339	93	90
22	55	39	51	55	223	325	550	144	566	242	85	91
23	68	36	63	58	190	295	462	169	547	177	83	127
24	127	34	143	101	166	266	419	196	472	149	104	114
25	103	34	158	97	142	249	393	206	385	128	220	95
26	137	68	127	69	188	267	499	173	323	117	284	86
27	147	88	111	55	254	242	1260	158	303	108	180	144
28	254	87	154	52	236	183	1670	152	294	200	137	129
29	73	83	140	50	---	212	1510	1080	782	171	114	107
30	45	79	116	47	---	282	1210	1050	1720	135	101	100
31	60	---	91	54	---	292	---	633	---	116	94	---
TOTAL	2411	2318	3710	13820	14022	9778	22257	11343	27298	8706	5524	3197
MEAN	77.8	77.3	120	446	501	315	742	366	910	281	178	107
MAX	254	113	521	3470	2500	548	1670	1080	2440	1310	518	217
MIN	43	34	38	47	142	183	323	144	294	108	83	74

CAL YR 1981 TOTAL 65533 MEAN 180 MAX 3990 MIN 25
WTR YR 1982 TOTAL 124384 MEAN 341 MAX 3470 MIN 34

01388600 POMPTON RIVER AT PACKANACK LAKE, NJ

LOCATION.--Lat 40°56'36", long 74°16'47", Morris County, Hydrologic Unit 02030103, at bridge on State Highway 504 in Packanack Lake, and 2.2 mi (3.3 km) downstream from confluence of Pequannock and Wanaque Rivers.

DRAINAGE AREA.--361 mi² (935 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 13...	1100	48	347	7.4	10.5	7.0	6.5	170	20	99
FEB 16...	1115	188	268	7.5	3.5	11.4	2.8	920	920	66
APR 07...	1215	832	210	7.6	2.5	13.6	2.4	4	15	52
JUN 22...	1115	575	205	7.6	20.0	8.6	2.6	170	350	55
JUL 27...	1300	108	300	6.7	25.0	6.4	6.0	220	79	80
AUG 16...	1400	132	255	7.0	22.5	7.9	3.0	<200	800	73

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 13...	27	7.7	31	2.2	63	<.1	28	42	.1
FEB 16...	18	5.1	20	1.4	40	--	22	40	<.1
APR 07...	14	4.1	17	.8	26	--	17	30	.1
JUN 22...	15	4.3	14	.8	34	<.5	16	25	.1
JUL 27...	22	6.2	22	1.2	52	--	19	37	.1
AUG 16...	20	5.5	20	1.1	42	--	18	32	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	6.1	210	--	1.5	--	E1.30	--	1.10	3.7
FEB 16...	8.2	157	--	1.0	.770	1.20	2.2	.44	3.3
APR 07...	6.2	99	.010	.50	.250	3.00	3.5	.15	1.8
JUN 22...	5.9	116	.060	.40	E.190	.67	1.1	.21	2.6
JUL 27...	7.6	180	.110	1.1	.360	.82	1.9	.55	3.2
AUG 16...	5.8	159	.100	.90	.280	1.00	1.9	.44	4.4

01388600 POMPTON RIVER AT PACKANACK LAKE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 13...	1100	20	2	<10	120	<1	10	12
JUN 22...	1115	<10	1	<10	40	1	10	8

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 13...	420	4	120	<.1	6	<1	30	1
JUN 22...	620	6	110	<.1	3	<1	40	8

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ
(National stream quality accounting network station)

LOCATION.--Lat 40°53'05", long 74°13'35", Passaic County, Hydrologic Unit 02030103, on left bank 0.6 mi (1.0 km) downstream from Beattie's Dam in Little Falls, and 1.0 mi (1.6 km) upstream from Peckman River. Water-quality monitor located 0.5 mi (0.8 km) upstream from gaging station.

DRAINAGE AREA.--762 mi² (1,974 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1897 to current year. Monthly discharge only for September 1897, published in WSP 1302. Published as "at Paterson" September 1897 to September 1955.

GAGE.--Water-stage recorder. Datum of gage is 120.00 ft (36.576 m) National Geodetic Vertical Datum of 1929 (levels by Passaic Valley Water Commission). Prior to Jan. 8, 1933, nonrecording gage and Jan. 8, 1933, to Sept. 30, 1955, water-stage recorder, at site 3.7 mi (6.0 km) downstream at National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Diurnal fluctuation at medium and low flow caused by hydroelectric plant at Beattie's Dam. Flow regulated by reservoirs in Rockaway, Pequannock, Wanaque, and Pompton River Basin (see Passaic River Basin, reservoirs in). Large diversions for municipal supply from Passaic River above Beattie's Dam, and from Rockaway, Pequannock, and Wanaque Rivers (see Passaic River Basin, diversions). In addition, the Commonwealth Water Co., diverts from Canoe Brook near Summit and from Passaic River (see Passaic River Basin, diversions); that company and the city of East Orange also divert water for municipal supply by pumping wells.

COOPERATION.--Gage-height record collected in cooperation with the Passaic Valley Water Commission.

AVERAGE DISCHARGE.--85 years, 1,156 ft³/s (32.74 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,700 ft³/s (898 m³/s) Oct. 10, 1903, present site; no flow July 3-5, 1904, July 16, 23, 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,230 ft³/s (120 m³/s) Jan. 6, gage height, 5.82 ft (1.774 m), no peaks above base of 4,400 ft³/s (125 m³/s); minimum, 52 ft³/s (1.47 m³/s) Oct. 18, gage height, 0.24 ft (0.073 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1.	74	317	218	684	992	550	736	2780	1300	2090	296	169
2	367	283	1230	1190	1330	539	710	2600	1150	1750	385	294
3	334	254	1330	1190	2480	527	804	2350	1110	1300	300	551
4	196	222	1160	2600	3520	501	1940	2060	941	964	251	433
5	161	215	893	4000	3970	514	2100	1780	813	800	248	251
6	146	296	603	4120	3870	574	2040	1470	1010	674	262	202
7	153	391	394	3670	3400	743	2010	1150	1570	552	227	186
8	151	303	301	3300	2950	1350	1900	906	1840	466	191	191
9	127	263	349	2950	2540	1440	1820	787	1590	402	602	183
10	105	243	285	2530	2200	1340	1750	743	1220	343	934	167
11	91	236	248	2040	1870	1200	1790	661	932	270	927	155
12	91	219	227	1620	1590	1120	1790	574	770	290	839	144
13	86	203	215	1300	1340	1200	1730	533	922	409	604	138
14	84	186	198	1030	968	1260	1650	523	2120	370	426	139
15	89	176	553	830	746	1180	1520	496	2460	316	330	141
16	100	220	1210	669	785	1000	1330	444	2250	281	236	138
17	88	211	1190	556	937	1030	1160	408	3020	249	225	134
18	79	210	1080	444	903	1090	1440	375	3090	228	208	129
19	248	199	917	376	841	1060	1690	332	2720	222	191	121
20	222	252	705	368	922	947	1630	342	2390	407	175	142
21	148	285	484	352	993	860	1500	348	2040	628	161	203
22	120	219	409	301	1000	862	1310	316	1680	469	142	207
23	160	176	380	318	952	826	1090	348	1320	312	136	297
24	420	156	606	462	871	748	942	442	1050	256	159	346
25	364	139	636	553	759	692	844	470	811	212	373	263
26	402	144	514	487	647	674	895	465	634	180	514	195
27	513	184	442	393	630	702	1730	397	536	188	363	360
28	718	181	545	326	587	623	2690	362	472	437	220	447
29	653	168	562	285	---	558	2750	1190	842	662	192	331
30	474	159	491	261	---	601	2820	1720	1990	511	171	216
31	302	---	415	286	---	624	---	1580	---	370	159	---
TOTAL	7266	6710	18790	39491	44593	26935	48111	28952	44593	16608	10447	6873
MEAN	234	224	606	1274	1593	869	1604	934	1486	536	337	229
MAX	718	391	1330	4120	3970	1440	2820	2780	3090	2090	934	551
MIN	74	139	198	261	587	501	710	316	472	180	136	121

CAL YR 1981 TOTAL 175545 MEAN 481 MAX 4230 MIN 74
WTR YR 1982 TOTAL 299369 MEAN 820 MAX 4120 MIN 74

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
WATER TEMPERATURES: Water years 1963 to 1980 (once daily), September 1980 to current year.
DISSOLVED OXYGEN: October 1970 to September 1980 (once daily).
SUSPENDED-SEDIMENT DISCHARGE: August 1963 to July 1965.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Missing continuous water-quality records are the result of malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 841 micromhos Jan. 26, 1982; minimum, 154 micromhos May 13, 1981.
WATER TEMPERATURES: Maximum, 29.5°C July 12, 1981; minimum, 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum daily, 14.4 mg/L Jan. 7, 1973; minimum daily, 1.7 mg/L June 23, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 841 micromhos Jan. 26; minimum, 175 micromhos June 17.
WATER TEMPERATURES: Maximum, 29.0°C July 18-19; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
NOV 17...	1130	230	485	7.9	8.5	5.0	10.6	7.0	200	360	121
JAN 28...	1130	334	610	7.5	.0	2.6	13.9	4.5	>600	740	110
MAR 23...	1300	836	334	7.7	8.0	4.8	11.6	3.3	560	220	82
MAY 27...	1130	327	462	7.7	19.5	9.4	4.2	>4.2	K44	1200	108
JUL 07...	1015	551	297	7.8	22.0	8.3	6.7	4.5	770	580	80
SEP 15...	1145	170	465	8.4	22.0	3.8	7.4	7.0	160	1000	126

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 17...	32	10	44	3.7	63	46	61	.2	13	282
JAN 28...	29	9.2	69	3.0	49	36	120	.1	14	343
MAR 23...	21	7.1	29	1.9	46	27	46	.1	8.7	182
MAY 27...	29	8.7	37	3.2	62	74	42	.2	11	278
JUL 07...	21	6.7	26	1.5	49	23	38	.2	9.4	172
SEP 15...	34	9.9	35	3.8	84	39	55	.2	12	275

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 17...	12	7.5	100	2.1	3.00	3.80	.720	.540	.540	6.9
JAN 28...	3	2.7	100	1.3	3.20	3.40	.500	.370	.340	--
MAR 23...	17	38	100	.81	1.30	2.40	.270	.140	.130	--
MAY 27...	37	33	100	1.6	2.30	3.10	.550	.280	.230	--
JUL 07...	28	42	100	1.3	.720	1.90	.290	.130	.130	--
SEP 15...	16	7.3	100	2.2	.510	3.00	.670	.510	.460	5.5

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
NOV 17...	1130	1	1	<100	18	1	<1	10	10	1
JAN 28...	1130	1	<1	<100	23	1	<1	10	10	1
MAY 27...	1130	1	1	<100	23	1	<1	10	<10	4
SEP 15...	1145	2	2	100	22	2	<1	10	<10	3

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
NOV 17...	1	15	9	810	16	6	<1	130	100	<.1
JAN 28...	1	11	7	550	31	11	<1	200	180	.2
MAY 27...	4	11	5	1400	15	11	6	220	160	.1
SEP 15...	<1	10	4	880	28	7	4	130	71	.2

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 17...	<.1	5	3	<1	<1	<1	<1	70	8
JAN 28...	.2	4	4	<1	<1	1	<1	80	24
MAY 27...	.1	6	5	<1	<1	<1	<1	20	<3
SEP 15...	.2	6	3	<1	<1	<1	<1	60	<4

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	558	526	542	---	---	---	470	438	459	403	343	377
2	550	445	500	---	---	---	427	291	348	376	333	360
3	543	457	517	---	---	---	293	252	276	328	296	305
4	441	405	414	---	---	---	263	253	258	306	216	258
5	452	407	429	---	---	---	282	262	268	235	183	199
6	467	443	453	---	---	---	313	282	296	186	178	182
7	470	454	461	---	---	---	321	314	318	191	187	189
8	501	471	487	---	---	---	345	317	334	198	191	194
9	535	505	519	---	---	---	365	343	353	206	199	203
10	538	527	534	---	---	---	376	365	371	216	206	210
11	542	527	537	---	---	---	389	362	376	237	208	223
12	525	505	516	---	---	---	391	380	386	259	225	243
13	503	484	491	---	---	---	394	390	392	281	262	269
14	513	487	495	---	---	---	447	389	409	296	282	286
15	547	513	528	---	---	---	561	439	492	317	298	306
16	556	542	550	---	---	---	510	421	473	344	318	328
17	557	530	543	504	495	---	446	360	391	370	345	353
18	561	510	545	500	453	480	363	343	354	385	373	383
19	513	441	480	463	442	453	361	339	349	426	383	397
20	---	---	---	448	435	439	364	353	358	444	428	438
21	---	---	---	516	434	487	374	363	366	444	434	438
22	---	---	---	511	438	473	383	376	380	448	438	443
23	---	---	---	468	437	451	417	386	404	496	443	458
24	---	---	---	466	448	456	450	411	420	607	510	582
25	---	---	---	492	450	464	453	415	440	803	575	659
26	---	---	---	525	495	511	411	367	379	841	812	828
27	---	---	---	520	457	480	380	369	376	823	650	731
28	---	---	---	462	455	459	377	363	371	646	600	616
29	---	---	---	478	446	458	397	372	383	601	558	573
30	---	---	---	477	460	468	403	386	397	568	562	565
31	---	---	---	---	---	---	395	380	390	583	544	555
MONTH	561	405	502	525	434	468	561	252	373	841	178	392

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	650	519	581	367	360	364	355	346	352	212	198	207
2	578	447	516	381	366	371	348	317	327	218	207	212
3	436	284	331	392	368	381	340	275	327	226	214	221
4	281	222	245	379	365	372	285	239	264	234	223	228
5	225	218	221	403	374	391	239	222	230	246	231	237
6	229	225	227	425	396	410	232	226	228	262	245	254
7	232	228	230	448	392	437	254	225	235	273	259	265
8	236	230	233	394	359	381	298	254	270	292	275	283
9	248	233	238	369	333	347	316	300	307	304	289	294
10	264	247	256	350	337	343	328	317	324	307	296	301
11	292	265	280	357	339	349	314	297	305	330	300	306
12	306	292	300	362	347	354	296	285	292	349	331	340
13	316	304	308	354	335	347	283	274	277	351	333	340
14	333	313	320	333	317	324	280	273	276	338	333	336
15	337	330	334	328	316	324	281	272	277	371	338	358
16	350	337	341	316	304	308	288	276	283	391	363	376
17	349	332	339	320	312	315	303	287	292	380	361	371
18	334	320	325	320	310	316	302	275	286	387	370	378
19	349	308	326	319	305	313	275	252	262	412	381	397
20	399	337	357	317	303	311	260	248	253	402	390	397
21	433	394	411	321	304	313	264	260	262	432	384	416
22	392	364	376	326	307	318	272	261	267	427	414	422
23	362	340	349	329	316	321	279	271	274	440	411	423
24	337	325	328	345	330	336	292	279	283	451	406	430
25	336	327	330	337	322	330	309	292	298	442	393	418
26	351	332	338	339	331	334	314	292	307	417	401	413
27	348	337	343	336	326	330	287	242	270	453	406	436
28	357	349	354	328	317	323	236	200	208	444	389	405
29	---	---	---	335	326	331	202	196	199	397	259	317
30	---	---	---	333	317	324	202	195	200	324	246	279
31	---	---	---	343	320	327	---	---	---	243	230	239
MONTH	650	218	326	448	303	343	355	195	275	453	198	332

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	252	239	245	220	208	212	337	324	330	461	449	455
2	255	249	252	235	213	227	351	323	337	456	399	435
3	258	250	253	252	213	231	375	354	367	422	348	388
4	286	258	270	263	254	257	388	366	379	421	345	385
5	291	281	285	274	261	269	402	385	394	357	347	352
6	290	260	267	292	270	284	425	379	397	372	352	366
7	264	236	248	300	291	294	432	414	423	413	355	383
8	236	221	227	326	297	313	449	430	439	436	399	420
9	229	220	225	328	321	325	449	278	371	435	417	428
10	247	230	239	345	330	338	362	283	323	433	417	426
11	262	246	254	376	344	361	297	260	284	437	413	425
12	283	263	272	387	374	384	273	254	260	446	430	438
13	293	240	277	381	357	368	305	274	287	449	447	448
14	249	215	235	379	363	372	308	302	306	449	434	445
15	211	192	199	390	378	385	319	300	310	467	435	457
16	214	202	209	401	386	393	326	307	320	482	462	469
17	212	175	186	429	399	420	341	326	337	518	477	497
18	187	177	182	424	407	415	362	339	353	520	495	509
19	198	186	193	431	405	420	379	352	363	495	488	492
20	211	199	205	441	298	395	385	369	378	493	473	486
21	228	212	220	408	304	379	400	383	391	469	449	460
22	240	226	232	347	327	336	408	396	401	494	473	487
23	249	240	245	346	325	335	425	410	416	478	415	454
24	267	250	257	355	349	351	444	425	434	466	417	448
25	300	268	285	376	350	364	442	327	397	450	402	416
26	306	293	298	394	370	384	400	356	386	415	397	407
27	309	305	307	422	392	408	368	327	342	398	338	374
28	320	307	315	422	345	396	357	331	346	430	389	418
29	326	233	303	458	345	401	366	352	360	386	349	363
30	273	221	246	341	282	311	391	365	381	365	341	352
31	---	---	---	337	303	323	449	386	408	---	---	---
MONTH	326	175	248	458	208	344	449	254	362	520	338	429
YEAR	841	175	357									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.5	15.5	16.0	---	---	---	4.5	3.5	4.0	3.0	2.0	2.5
2	15.5	14.5	15.0	---	---	---	4.5	3.5	4.0	2.5	2.0	2.5
3	14.5	13.5	14.0	---	---	---	5.0	4.5	5.0	2.0	1.5	1.5
4	14.0	13.0	13.5	---	---	---	5.0	4.5	4.5	3.0	1.5	2.5
5	14.5	13.5	14.0	---	---	---	4.5	4.5	4.5	3.0	2.5	2.5
6	14.5	14.0	14.0	---	---	---	4.5	3.0	4.0	2.5	1.5	2.0
7	14.5	14.0	14.5	---	---	---	3.0	2.5	3.0	2.5	2.0	2.0
8	14.0	13.5	13.5	---	---	---	3.5	3.0	3.0	2.0	.5	1.0
9	13.5	13.0	13.5	---	---	---	3.5	2.5	3.0	.5	.0	.5
10	14.0	12.5	13.0	---	---	---	3.0	2.0	2.5	.0	.0	.0
11	14.0	12.5	13.0	---	---	---	2.0	1.5	2.0	.0	.0	.0
12	13.5	12.5	13.0	---	---	---	2.0	2.0	2.0	.0	.0	.0
13	13.0	11.5	12.5	---	---	---	2.0	1.5	2.0	.0	.0	.0
14	13.0	11.5	12.0	---	---	---	1.5	1.0	1.5	.0	.0	.0
15	13.0	11.5	12.0	---	---	---	2.0	1.5	1.5	.0	.0	.0
16	13.0	11.5	12.0	---	---	---	2.0	1.5	1.5	.0	.0	.0
17	13.0	11.5	12.5	9.0	9.0	---	1.5	1.5	1.5	.0	.0	.0
18	12.5	11.5	12.0	9.5	9.0	9.0	1.5	1.0	1.5	.0	.0	.0
19	12.0	11.0	11.5	9.5	9.0	9.5	1.0	.5	1.0	.0	.0	.0
20	---	---	---	10.0	9.5	10.0	.5	.0	.0	.0	.0	.0
21	---	---	---	10.0	8.5	9.5	.0	.0	.0	.0	.0	.0
22	---	---	---	8.5	7.5	8.0	.5	.0	.5	.0	.0	.0
23	---	---	---	7.5	6.5	7.0	1.5	.5	1.0	.0	.0	.0
24	---	---	---	6.5	5.5	6.0	2.5	1.5	2.0	.0	.0	.0
25	---	---	---	5.5	4.5	5.0	2.5	2.0	2.0	.0	.0	.0
26	---	---	---	4.5	4.0	4.5	2.0	1.5	1.5	.0	.0	.0
27	---	---	---	5.0	4.0	4.5	2.0	1.5	2.0	.0	.0	.0
28	---	---	---	5.0	4.5	5.0	2.5	2.0	2.0	.0	.0	.0
29	---	---	---	5.0	4.5	5.0	3.0	2.5	2.5	.0	.0	.0
30	---	---	---	4.5	4.5	4.5	2.5	2.0	2.0	.0	.0	.0
31	---	---	---	---	---	---	2.0	1.5	2.0	.0	.0	.0
MONTH	16.5	11.0	13.0	10.0	4.0	6.5	5.0	.0	2.0	3.0	.0	.5

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.0	.5	3.5	2.5	3.0	9.5	8.0	9.0	15.5	14.5	15.0
2	.0	.0	.0	4.0	2.5	3.5	10.0	8.5	9.0	16.0	15.0	15.5
3	.5	.0	.0	4.5	3.5	4.0	9.5	9.0	9.5	16.5	15.5	16.0
4	.5	.0	.5	3.5	2.5	3.0	9.0	7.0	8.0	16.5	16.0	16.5
5	.5	.0	.0	4.0	2.5	3.0	7.0	6.0	6.5	17.0	15.5	16.5
6	.5	.0	.5	3.5	3.0	3.5	6.5	3.0	5.0	17.0	16.0	16.5
7	.5	.0	.0	3.5	3.0	3.5	3.0	2.0	2.5	18.0	16.5	17.0
8	.5	.0	.0	3.0	2.0	3.0	3.5	2.0	3.0	18.0	17.0	17.5
9	.5	.5	.5	3.0	1.5	2.0	4.0	3.5	3.5	17.5	16.5	17.0
10	.5	.0	.5	2.5	1.0	2.0	6.0	3.5	4.5	18.0	16.5	17.5
11	.5	.0	.5	3.5	2.5	3.0	7.0	5.5	6.5	18.5	17.0	17.5
12	.5	.0	.5	5.0	3.5	4.0	8.0	6.5	7.0	18.0	17.5	17.5
13	.5	.5	.5	5.5	4.5	5.0	8.0	7.5	7.5	18.5	17.0	18.0
14	1.0	.0	.5	6.0	4.5	5.5	9.5	7.5	8.5	19.5	17.5	18.5
15	2.5	.5	1.5	6.5	5.5	6.0	10.5	9.0	9.5	20.5	18.0	19.5
16	3.5	2.0	3.0	6.0	5.5	6.0	12.0	10.0	11.0	21.0	19.0	20.0
17	3.5	3.0	3.5	6.0	5.5	5.5	13.5	12.0	13.0	22.0	20.0	21.0
18	3.0	2.5	2.5	6.0	4.5	5.5	14.5	13.0	14.0	21.5	20.5	21.0
19	2.5	2.0	2.5	7.0	6.0	6.5	14.0	12.5	13.5	21.5	20.5	21.0
20	3.0	2.0	2.5	7.5	6.0	7.0	14.0	12.5	13.0	22.0	21.0	21.5
21	3.5	3.0	3.0	7.5	7.5	7.5	14.5	13.5	14.0	22.0	21.0	21.5
22	3.5	3.0	3.5	8.0	7.0	7.5	13.5	12.5	13.5	21.0	19.0	19.5
23	3.5	2.5	3.0	8.5	7.5	8.0	13.0	12.0	12.5	19.0	16.5	17.5
24	3.5	3.0	3.0	8.5	8.0	8.0	14.5	12.5	13.5	16.5	15.0	15.5
25	2.5	1.5	2.0	9.0	8.0	8.5	15.5	14.0	15.0	16.5	14.5	15.5
26	2.0	.5	1.5	9.0	8.5	9.0	16.0	15.0	15.5	19.0	16.0	17.5
27	2.0	1.0	1.5	8.5	7.0	8.0	15.5	14.5	15.0	21.0	18.5	19.5
28	3.0	1.5	2.5	7.0	6.0	6.5	15.5	13.5	14.0	21.0	20.0	20.0
29	---	---	---	7.0	5.5	6.5	14.0	12.0	13.0	20.0	18.0	18.5
30	---	---	---	8.0	6.5	7.5	15.5	13.0	14.0	19.0	18.0	18.5
31	---	---	---	8.5	8.0	8.5	---	---	---	19.0	18.5	18.5
MONTH	3.5	.0	1.5	9.0	1.0	5.5	16.0	2.0	10.0	22.0	14.5	18.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	18.5	18.5	22.5	21.5	22.0	25.5	24.0	24.5	21.5	21.0	21.0
2	20.0	18.0	19.0	22.0	21.0	21.5	25.5	24.0	24.5	22.5	20.5	21.5
3	20.0	18.5	19.5	21.5	20.5	21.0	26.0	24.5	25.5	23.0	21.5	22.5
4	19.5	18.5	19.0	21.0	19.5	20.5	25.5	25.0	25.5	22.5	21.5	22.0
5	19.0	18.0	18.5	22.0	20.0	21.0	26.0	25.5	25.5	22.0	20.5	21.5
6	18.0	17.5	18.0	23.0	21.0	22.0	26.0	25.0	25.5	22.0	21.0	21.5
7	17.5	16.0	16.5	23.5	21.5	22.5	25.5	24.5	25.0	22.0	21.0	21.5
8	17.0	15.5	16.5	25.5	22.5	24.0	25.0	24.5	25.0	21.0	20.0	20.5
9	19.0	17.0	18.0	26.5	24.0	25.5	24.5	24.0	24.5	21.0	19.5	20.0
10	19.5	18.5	19.0	27.0	25.0	26.0	25.0	24.0	24.5	21.5	20.0	21.0
11	19.5	18.5	19.0	27.0	25.5	26.0	25.0	23.5	24.0	22.5	20.5	21.5
12	19.0	18.0	18.5	26.0	25.0	26.0	24.0	23.0	23.5	23.0	21.0	22.0
13	18.5	16.0	17.0	26.0	24.5	25.5	24.0	22.5	23.0	23.0	21.5	22.0
14	16.5	15.5	16.0	26.5	25.5	26.0	23.5	22.5	23.0	23.0	21.5	22.5
15	18.0	16.0	17.0	27.0	25.5	26.0	24.0	21.5	23.0	23.0	21.5	22.5
16	20.0	18.0	19.0	27.5	25.5	26.5	24.0	22.5	23.5	23.0	22.0	22.5
17	20.5	19.5	20.0	28.0	26.5	27.0	24.0	23.5	24.0	22.5	21.0	22.0
18	21.5	20.0	21.0	29.0	27.0	28.0	25.0	24.0	24.0	21.5	20.5	21.0
19	21.5	21.0	21.0	29.0	28.0	28.5	25.0	23.5	24.0	21.0	19.5	20.0
20	21.5	20.5	21.0	28.5	25.5	27.5	24.0	23.5	24.0	20.0	18.5	19.0
21	21.0	20.5	21.0	26.0	25.0	25.5	24.0	23.0	23.5	18.0	17.5	18.0
22	22.0	20.5	21.0	25.5	24.0	25.0	23.0	22.0	22.5	18.0	17.5	17.5
23	22.0	20.5	21.5	25.5	24.0	25.0	23.0	21.5	22.0	18.0	17.0	17.5
24	22.0	20.5	21.0	26.0	24.0	25.0	23.5	21.5	22.5	18.0	17.0	17.5
25	22.0	20.5	21.5	26.0	25.0	25.5	23.0	22.0	22.5	18.0	17.5	18.0
26	23.0	21.0	22.0	26.5	25.5	26.0	23.0	21.0	22.0	18.0	17.5	18.0
27	23.5	22.0	23.0	27.5	26.0	26.5	22.5	21.5	22.0	18.5	17.5	18.0
28	24.0	22.5	23.5	26.5	25.0	26.0	22.0	21.0	21.5	19.0	18.0	18.5
29	24.0	22.0	23.0	25.5	24.5	25.0	21.0	20.5	20.5	19.0	18.0	18.5
30	22.5	21.5	22.0	24.5	23.5	24.0	21.5	20.0	20.5	18.5	18.0	18.0
31	---	---	---	25.0	23.5	24.0	21.5	20.0	20.5	---	---	---
MONTH	24.0	15.5	19.5	29.0	19.5	25.0	26.0	20.0	23.5	23.0	17.0	20.5
YEAR	29.0	.0	12.5									

01390500 SADDLE RIVER AT RIDGEWOOD, NJ

LOCATION.--Lat 40°59'05", long 74°05'30", Bergen County, Hydrologic Unit 02030103, on left bank 15 ft (4.6 m) upstream from bridge on State Highway 17 in Ridgewood and 2.8 mi (4.5 km) upstream from Hohokus Brook.

DRAINAGE AREA.--21.6 mi² (55.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1954 to September 1974, October 1977 to current year. Operated as a maximum-stage gage water years 1975-77.

REVISED RECORDS.--WRD-NJ 1974: 1971.

GAGE.--Water-stage recorder. Datum of gage is 71.74 ft (21.866 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records fair. The flow past this station is affected by pumpage from wells by Hackensack Water Co. and others.

AVERAGE DISCHARGE.--25 years (water years 1955-74, 1978-82), 35.2 ft³/s (0.997 m³/s), 22.13 in/yr (562 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,650 ft³/s (132 m³/s) Nov. 8, 1977, gage height, 12.25 ft (3.734 m); minimum daily, 0.2 ft³/s (0.006 m³/s) Sept. 17, 18, 1966.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood on July 23, 1945, reached a discharge of 6,400 ft³/s (181 m³/s), at site 1.6 mi (2.6 km) upstream, drainage area, 19.1 mi² (49.5 km²), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft³/s (10.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1500	*772	21.9	5.03	1.533	June 17	0330	432	12.2	4.04	1.231
May 29	0800	449	12.7	4.10	1.250	June 29	1830	477	13.5	4.19	1.277

Minimum discharge, 2.9 ft³/s (0.082 m³/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	6.8	15	47	128	17	28	40	34	37	22	7.6
2	46	6.8	137	39	42	18	20	37	49	27	9.6	22
3	8.2	6.5	33	20	261	17	84	35	28	25	7.3	26
4	5.6	6.0	13	310	115	16	105	34	24	30	7.0	9.9
5	4.7	6.7	8.8	96	60	21	42	33	38	22	6.6	7.5
6	4.8	18	7.7	47	45	21	41	33	88	18	7.0	6.5
7	5.3	12	7.6	38	37	57	36	32	84	18	6.4	6.0
8	4.5	9.4	9.2	32	33	56	37	30	37	16	5.6	6.4
9	5.2	9.1	8.7	28	34	30	41	28	27	16	53	6.6
10	4.2	7.6	7.4	27	31	25	44	25	21	13	19	6.0
11	4.9	8.4	7.1	32	26	26	48	25	19	12	9.2	5.4
12	4.2	7.3	7.0	26	24	35	39	25	17	41	9.4	5.7
13	5.3	7.6	6.8	23	24	34	35	35	77	22	8.1	5.8
14	4.2	7.0	7.1	26	22	29	33	30	109	14	7.0	4.3
15	5.5	8.3	40	22	24	23	29	24	43	12	6.6	4.4
16	6.4	9.5	85	20	35	22	28	22	58	11	6.3	4.5
17	6.7	10	29	17	32	37	28	21	180	10	6.2	4.2
18	7.1	9.5	19	18	24	37	75	20	53	9.5	6.4	4.2
19	18	6.3	15	19	31	28	36	18	41	14	6.6	4.3
20	6.6	19	13	18	39	25	32	18	36	56	5.9	6.1
21	5.1	14	11	16	36	26	32	17	32	24	5.8	8.3
22	5.5	7.9	9.9	15	30	26	28	15	30	12	5.5	7.6
23	12	6.7	19	26	26	24	26	27	33	11	5.7	42
24	37	6.0	28	35	24	22	25	28	27	9.3	6.2	12
25	9.8	6.7	17	21	22	21	25	22	24	7.5	55	7.3
26	33	5.5	13	18	18	24	89	17	22	7.9	21	6.5
27	25	6.3	15	16	18	22	100	16	22	7.2	9.5	17
28	38	6.1	24	16	18	19	105	17	22	48	8.3	10
29	13	6.0	16	15	---	18	52	171	144	18	6.5	10
30	9.7	5.4	13	14	---	18	43	46	88	11	5.8	7.0
31	7.5	---	12	23	---	24	---	43	---	9.8	5.5	---
TOTAL	358.4	252.4	654.3	1120	1259	818	1386	984	1507	589.2	350.0	281.1
MEAN	11.6	8.41	21.1	36.1	45.0	26.4	46.2	31.7	50.2	19.0	11.3	9.37
MAX	46	19	137	310	261	57	105	171	180	56	55	42
MIN	4.2	5.4	6.8	14	18	16	20	15	17	7.2	5.5	4.2
CFSM	.54	.39	.98	1.67	2.08	1.22	2.14	1.47	2.32	.88	.52	.43
IN.	.62	.43	1.13	1.93	2.17	1.41	2.39	1.69	2.60	1.01	.60	.48

CAL YR 1981 TOTAL 6675.9 MEAN 18.3 MAX 371 MIN 3.0 CFSM .85 IN 11.50
WTR YR 1982 TOTAL 9559.4 MEAN 26.2 MAX 310 MIN 4.2 CFSM 1.21 IN 16.46

01391000 HOHOKUS BROOK AT HOHOKUS, NJ

LOCATION.--Lat 40°59'52", long 74°06'48", Bergen County, Hydrologic Unit 02030103, on left bank 500 ft (150 m) upstream from bridge on Maple Avenue in Hohokus, and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--16.4 mi² (42.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1954 to September 1973, October 1977 to current year. Operated as a crest-stage partial-record station, water years 1974-77.

REVISED RECORDS.--WDR NJ-77-1: 1955(M), 1968(M), 1976(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 120.09 ft (36.603 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good except those above 100 ft³/s (2.8 m³/s), which are poor. Some regulation at low and medium flows caused by unknown sources.

AVERAGE DISCHARGE.--24 years, (water years 1955-73, 1978-82) 31.9 ft³/s (0.903 m³/s), 26.41 in/yr (671 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft³/s (105 m³/s) Nov. 8, 1977, gage height, 7.06 ft (2.152 m), from rating curve extended above 750 ft³/s (212 m³/s) by computation of peak flow over dam; minimum, 1.9 ft³/s (0.054 m³/s) Aug. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1015	*652	18.5	3.08	0.939

Minimum discharge, 5.1 ft³/s (0.14 m³/s) Oct. 17, gage height, 1.21 ft (0.369 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	14	25	54	139	21	29	35	35	41	27	19
2	48	13	106	42	48	22	22	31	52	34	18	31
3	13	13	30	25	261	21	77	29	30	30	17	35
4	11	12	21	278	136	20	97	28	27	31	15	17
5	11	12	18	110	63	26	41	27	38	24	16	14
6	11	25	16	51	44	25	40	25	74	24	15	13
7	11	16	15	41	36	61	38	25	64	22	15	13
8	11	13	16	34	32	58	36	24	37	22	14	15
9	10	12	16	30	32	33	38	23	30	21	86	18
10	11	12	15	25	31	29	42	23	27	19	34	16
11	9.2	12	14	22	27	30	47	21	24	18	21	16
12	9.4	12	14	20	25	38	40	22	23	38	21	14
13	9.8	12	13	20	24	37	37	26	75	23	18	12
14	9.0	14	13	23	23	33	35	21	106	20	16	12
15	9.5	13	49	22	25	29	30	20	45	19	15	12
16	9.5	16	79	21	34	28	28	19	60	18	15	12
17	9.2	16	32	19	33	40	29	20	185	17	14	12
18	16	15	24	18	27	36	75	20	58	16	14	12
19	23	13	21	18	33	31	37	19	41	19	14	21
20	12	29	18	19	39	29	32	19	36	57	13	30
21	10	21	16	19	36	30	32	18	32	30	13	25
22	10	14	17	17	32	32	30	19	29	20	12	20
23	20	13	28	21	29	27	26	30	34	18	13	40
24	33	13	31	31	27	25	26	28	27	16	15	19
25	14	13	23	22	24	24	25	23	26	15	59	15
26	32	12	20	19	22	28	79	20	24	16	24	13
27	23	12	22	18	22	26	91	19	23	15	16	38
28	39	12	28	17	22	22	108	20	23	61	15	22
29	17	11	22	17	---	22	51	151	129	28	13	16
30	16	11	13	17	---	22	40	44	94	19	13	14
31	16	---	18	26	---	26	---	47	---	19	13	---
TOTAL	494.6	426	799	1116	1326	931	1358	896	1508	770	624	566
MEAN	16.0	14.2	25.8	36.0	47.4	30.0	45.3	28.9	50.3	24.8	20.1	18.9
MAX	48	29	106	278	261	61	108	151	185	61	86	40
MIN	9.0	11	13	17	22	20	22	18	23	15	12	12
CFSM	.98	.87	1.57	2.20	2.89	1.83	2.76	1.76	3.07	1.51	1.23	1.15
IN.	1.12	.97	1.81	2.53	3.01	2.11	3.08	2.03	3.42	1.75	1.42	1.28

CAL YR 1981 TOTAL 7893.6 MEAN 21.6 MAX 293 MIN 6.6 CFSM 1.32 IN 17.90
WTR YR 1982 TOTAL 10814.6 MEAN 29.6 MAX 278 MIN 9.0 CFSM 1.81 IN 24.53

01391200 SADDLE RIVER AT FAIR LAWN, NJ

LOCATION.--Lat 40°56'30", long 74°05'36", Bergen County, Hydrologic Unit 02030103, at bridge on Century Road in Fair Lawn, and 0.8 mi (1.3 km) downstream from Hohokus Brook.

DRAINAGE AREA.--45.2 mi^2 (117.1 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 05...	1045	14	665	7.7	16.0	6.9	6.8	70	<2	180
FEB 25...	1030	43	581	7.6	3.0	12.2	5.1	<200	<200	160
APR 12...	1145	70	418	7.8	--	--	3.4	7	34	150
JUN 15...	1045	78	423	7.6	16.0	8.5	5.6	350	130	130
JUL 21...	1230	21	510	6.9	23.5	14.0	4.2	540	110	140
AUG 18...	1230	--	650	7.1	23.5	8.5	16	49	33	170

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	46	16	67	7.6	110	--	52	80	.1
FEB 25...	44	12	40	3.3	120	--	31	67	<.1
APR 12...	41	11	45	2.3	92	--	36	73	.1
JUN 15...	36	9.5	29	2.5	85	<.5	28	45	<.1
JUL 21...	36	11	36	4.0	81	--	31	53	.1
AUG 18...	45	14	44	4.3	109	--	32	67	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	16	411	--	2.9	--	E9.50	--	11.0	11
FEB 25...	10	313	--	2.5	E2.80	5.70	8.2	2.60	6.8
APR 12...	9.0	290	.180	1.8	2.90	E3.20	--	1.80	5.8
JUN 15...	11	244	.210	2.1	2.10	2.70	4.8	1.50	5.6
JUL 21...	11	297	.400	2.8	3.10	6.00	8.8	4.50	6.5
AUG 18...	12	329	.850	4.4	2.40	3.60	8.0	5.00	5.9

01391200 SADDLE RIVER AT FAIR LAWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
05...	1045	608	<.1	1.8	--	--	0	--	--	--	<1
JUN											
15...	1045	--	--	--	30	2	--	<10	100	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
05...	--	<1	<10	--	1	--	130	--	<10	--	29
JUN											
15...	10	--	--	16	--	560	--	3	--	70	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
05...	--	<.01	--	<10	--	<1	--	8	--	2	<1.0
JUN											
15...	.1	--	5	--	<1	--	20	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
05...	<.1	6.0	1.4	.2	1.6	<.1	<.1	<.1	<.1	<.1	<.1
JUN											
15...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN										
15...	--	--	--	--	--	--	--	--	--	--

01391500 SADDLE RIVER AT LODI, NJ

LOCATION.--Lat 40°53'25", long 74°04'51", Bergen County, Hydrologic Unit 02030103, on left bank 560 ft (171 m) upstream from bridge on Outwater Lane in Lodi and 3.2 mi (5.1 km) upstream from mouth. Water-quality samples collected at bridge on Outwater Lane at high flows.

DRAINAGE AREA.--54.6 mi^2 (141.4 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1923 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1031: 1940(M). WSP 1552: 1929(M), 1936(M), 1938. WRD-NJ 1969: 1967. WRD-NJ 1970: 1968, 1969.

GAGE.--Water-stage recorder. Concrete control since Nov. 2, 1938. Datum of gage is 25.00 ft (7.620 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 2, 1938, at site 560 ft (171 m) downstream at datum 2.54 ft (0.774 m) lower.

REMARKS.--Water-discharge records fair. Occasional regulation at low flow by mills above station. Diversion above station by Hackensack Water Co., for municipal supply (records given herein).

AVERAGE DISCHARGE.--59 years, 99.6 ft^3/s (2.821 m^3/s), 24.77 in/yr (629 mm/yr), adjusted for diversion since 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft^3/s (127 m^3/s) Nov. 9, 1977, gage height, 12.36 ft (3.767 m), from high-water mark in gage house; minimum, 1.0 ft^3/s (0.028 m^3/s) May 25, 1938, gage height, 1.03 ft (0.314 m), site and datum then in use; minimum daily, 6.0 ft^3/s (0.17 m^3/s) Aug. 23, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34.0 m^3/s), and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1345	*1980	56.1	6.10	1.859
Feb. 3	1045	1230	34.8	4.68	1.426

Minimum discharge, 11 ft^3/s (0.31 m^3/s) Oct. 1, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	23	47	130	390	66	70	98	90	124	45	39
2	144	22	304	107	149	66	49	89	120	96	36	83
3	26	20	61	49	916	64	235	83	80	84	33	119
4	18	19	36	1080	438	62	409	80	66	94	32	47
5	17	19	32	403	221	76	139	73	97	67	31	37
6	18	64	28	167	150	78	126	72	226	50	31	35
7	19	33	27	128	122	184	123	65	205	48	30	36
8	15	24	26	108	109	191	118	52	107	47	29	32
9	16	21	25	97	111	100	123	50	81	45	219	35
10	16	20	23	80	104	84	125	45	69	42	74	39
11	15	20	22	64	90	85	145	42	63	41	37	34
12	14	19	22	54	84	99	118	41	60	74	38	31
13	14	19	21	51	82	103	107	65	209	56	34	31
14	14	21	21	58	77	93	103	50	343	42	38	27
15	13	21	150	54	78	79	87	42	125	42	36	26
16	14	35	248	49	97	76	83	39	105	40	35	26
17	15	28	78	45	105	113	84	39	577	39	34	25
18	38	40	50	44	83	107	222	37	179	38	32	24
19	76	20	45	45	105	88	108	35	125	58	31	32
20	20	53	38	45	120	80	89	35	111	211	31	58
21	16	40	34	44	112	87	86	38	92	80	31	60
22	16	27	34	39	98	85	75	33	71	44	28	47
23	59	21	50	57	87	75	70	58	84	42	31	169
24	98	19	65	78	81	70	68	58	65	39	35	57
25	28	19	43	52	75	63	61	43	58	37	173	39
26	109	21	37	45	68	63	172	40	54	38	79	35
27	74	20	42	44	68	57	301	38	52	37	42	79
28	89	20	60	49	67	47	317	42	53	204	38	54
29	36	19	41	51	---	45	140	425	355	61	33	41
30	25	18	37	50	---	44	109	109	346	40	30	35
31	26	---	35	82	---	59	---	105	---	36	30	---
TOTAL	1114	765	1782	3449	4287	2589	4062	2121	4268	1996	1456	1432
MEAN	35.9	25.5	57.5	111	153	83.5	135	68.4	142	64.4	47.0	47.7
MAX	144	64	304	1080	916	191	409	425	577	211	219	169
MIN	13	18	21	39	67	44	49	33	52	36	28	24
(†)	7.4	5.5	11.9	2.5	0	3.5	2.3	12.2	5.0	11.0	5.3	0.2
MEAN‡	43.3	31.0	69.4	114	153	87.0	137	80.6	147	75.4	52.3	47.9
CFSM‡	0.79	0.57	1.27	2.08	2.80	1.59	2.51	1.48	2.69	1.38	0.96	0.88
IN‡	0.91	0.63	1.47	2.41	2.92	1.84	2.80	1.70	3.00	1.59	1.10	0.98

CAL YR 1981 TOTAL 17514.0 MEAN 48.0 MAX 1050 MIN 8.0 MEAN‡ 60.7 CFSM‡ 1.11 IN‡ 15.09
WTR YR 1982 TOTAL 29321.0 MEAN 80.3 MAX 1080 MIN 13 MEAN‡ 85.9 CFSM† 1.57 IN‡ 21.36

† Diversion, equivalent in cubic feet per second, above station by Hackensack Water Co. Records of diversion furnished by Hackensack Water Co.

‡ Adjusted for diversion.

01391500 SADDLE RIVER AT LODI, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
01...	1230	12	711	7.6	13.0	6.8	7.6	490	230	226
FEB										
25...	1315	76	607	7.9	3.5	12.3	4.1	46	20	169
APR										
14...	1330	104	561	7.7	11.0	--	4.4	130	49	171
JUN										
15...	1330	123	420	7.6	18.0	7.4	6.2	1600	240	134
JUL										
22...	1130	43	600	7.1	23.0	5.1	9.9	7900	2300	163
AUG										
18...	1100	29	675	7.0	22.0	5.9	5.1	800	490	180

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
01...	59	19	60	6.2	130	<.1	50	93	.1
FEB									
25...	48	12	40	3.2	130	--	40	65	<.1
APR									
14...	47	13	49	2.4	100	--	39	69	.1
JUN									
15...	38	9.4	26	2.3	91	--	29	43	<.1
JUL									
22...	44	13	41	4.1	103	--	39	65	.1
AUG									
18...	49	14	42	3.5	120	--	32	72	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
01...	15	407	--	4.5	--	4.10	8.6	5.10	8.0
FEB									
25...	10	329	--	2.1	2.60	4.00	6.1	2.00	6.0
APR									
14...	9.3	321	.150	1.7	2.00	2.90	4.6	1.50	5.2
JUN									
15...	11	250	.230	2.0	.940	1.90	3.9	1.30	4.0
JUL									
22...	13	334	.400	2.0	3.60	4.20	6.2	3.80	7.0
AUG									
18...	12	340	.640	3.5	1.60	2.80	6.3	3.90	5.7

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT								
01...	1230	20	3	10	230	1	30	13

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
01...	470	8	110	<.1	4	<1	20	2

01392210 THIRD RIVER AT PASSAIC, NJ

LOCATION.--Lat 40°49'47", long 74°08'32", Passaic County, Hydrologic Unit 02030103, on right bank 400 ft (122 m) upstream from bridge on State Highway 3, 0.8 mi (1.3 km) south of Passaic, 1.2 mi (1.9 km) upstream from Passaic River.

DRAINAGE AREA.--11.8 mi^2 (30.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 22.15 ft (6.75 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, Oct. 25 to Nov. 13, Jan. 4-26, May 29 to June 1, Sept. 2-30, which are poor. Some regulation from ponds upstream.

AVERAGE DISCHARGE.--5 years, 22.0 ft^3/s (0.623 m^3/s), 25.32 in/yr (643 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft^3/s (65.1 m^3/s) Nov. 8, 1977, gage height, 8.25 ft (2.515 m), from rating curve extended above 300 ft^3/s) (8.50 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 0.84 ft^3/s (0.024 m^3/s) July 3, 1981, gage height, 1.39 ft (0.424 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft^3/s (15.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0950	*914	25.9	5.41	1.649
May 29	0430	584	16.5	4.62	1.408

Minimum discharge, 3.4 ft^3/s (0.096 m^3/s) Oct. 1, 2, gage height, 1.68 ft (0.512 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	7.6	21	49	103	9.4	14	16	8.4	8.6	7.0	8.7
2	45	7.1	117	16	22	9.3	11	14	15	8.3	6.9	8.6
3	6.8	6.6	13	11	58	9.1	107	13	8.2	9.6	6.8	17
4	5.5	6.2	9.1	580	48	17	52	13	7.8	9.5	6.7	6.6
5	5.2	6.1	8.3	70	25	14	16	13	24	7.6	17	6.2
6	5.4	21	7.4	30	20	12	21	13	35	7.2	9.7	6.0
7	9.9	11	7.6	23	17	58	21	11	28	7.2	6.5	5.4
8	6.7	8.0	23	19	16	21	23	11	10	6.8	6.6	5.8
9	5.1	7.0	15	17	19	13	20	10	8.8	6.3	47	6.2
10	5.1	6.6	7.9	14	16	11	22	10	8.5	6.2	13	5.2
11	4.7	6.5	7.7	11	13	12	21	9.6	8.6	5.8	8.3	5.0
12	5.5	6.3	8.1	9.0	12	14	17	9.7	8.1	25	12	4.7
13	6.0	6.0	7.1	8.6	12	11	20	11	75	8.2	6.8	4.8
14	5.6	6.0	7.1	9.6	11	9.7	19	9.3	39	7.2	6.2	4.7
15	6.1	6.5	68	9.0	16	9.6	12	8.9	13	7.0	6.1	5.2
16	5.3	14	125	8.3	14	10	11	8.4	19	6.2	5.9	5.4
17	5.0	11	50	7.6	11	21	13	8.0	70	6.2	16	4.8
18	4.8	27	13	7.4	10	11	43	8.1	13	6.1	7.4	5.2
19	41	7.4	11	7.4	24	9.3	13	7.9	11	6.2	5.9	4.5
20	11	29	9.4	7.5	16	9.0	14	8.6	10	82	5.3	17
21	6.3	11	9.2	7.1	13	13	12	8.4	9.4	10	5.7	9.0
22	5.6	7.1	8.4	6.6	11	9.2	11	8.6	10	8.0	5.4	11
23	15	7.1	15	9.0	11	8.7	12	18	16	7.2	13	24
24	31	7.2	10	13	10	13	9.9	10	8.9	6.5	8.4	6.6
25	9.0	6.6	8.6	9.6	9.8	8.5	10	12	8.7	5.9	59	6.0
26	35	6.6	9.2	9.0	9.5	13	73	8.1	9.6	8.4	7.6	6.8
27	24	7.1	16	8.9	9.3	8.3	55	7.9	10	7.5	6.6	33
28	29	6.5	13	8.6	9.1	7.7	73	9.9	7.7	105	6.1	7.0
29	13	6.2	8.9	8.3	---	8.0	21	70	54	26	5.5	6.2
30	8.0	6.9	8.3	14	---	8.2	17	19	16	8.3	5.8	6.2
31	8.3	---	8.1	22	---	19	---	16	---	7.5	5.2	---
TOTAL	379.2	279.2	650.4	1030.5	565.7	407.0	783.9	401.4	570.7	437.5	335.4	252.8
MEAN	12.2	9.31	21.0	33.2	20.2	13.1	26.1	12.9	19.0	14.1	10.8	8.43
MAX	45	29	125	580	103	58	107	70	75	105	59	33
MIN	4.7	6.0	7.1	6.6	9.1	7.7	9.9	7.9	7.7	5.8	5.2	4.5

CAL YR 1981 TOTAL 5744.2 MEAN 15.7 MAX 250 MIN 4.3
WTR YR 1982 TOTAL 6093.7 MEAN 16.7 MAX 580 MIN 4.5

RESERVOIRS IN PASSAIC RIVER BASIN

01379990 SPLITROCK RESERVOIR.--Lat 40°57'40", long 74°27'45", Morris County, Hydrologic Unit 02030103, at dam on Beaver Brook, 2 mi (3 km) northeast of Hibernia, NJ. DRAINAGE AREA, 5.50 mi^2 (14.2 km^2). PERIOD OF RECORD, September 1925 to September 1931, December 1948 to September 1950, October 1953 to current year. Monthend contents only 1925-31, 1948-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by a concrete gravity dam with earth embankment; present dam constructed 1946-48 and sluice gate first closed Dec. 22, 1948. Prior to 1946, reservoir was formed by earthfill dam with crest about 20 ft (6 m) lower. Capacity of spillway level, 3,310,000,000 gal (12.53 hm^3), elevation, 835 ft (254 m). Flow is regulated by two 30-inch (0.8 m) sluice gates. Flow is released for diversion for municipal supply of Jersey City. Records furnished by Jersey City, Bureau of Water.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 3,652,500,000 gal (13.82 hm^3) Apr. 5, 1973, elevation, 836.75 ft (255.04 m); minimum 1,522,800,000 gal (5.76 hm^3) Jan. 4, 1954, elevation, 824.20 ft (251.22 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 3,385,000,000 gal (12.81 hm^3) Apr. 7, 8, 29, 30, May 1-4, elevation, 835.40 ft (254.63 m); minimum, 2,577,000,000 gal (9.75 hm^3) Oct. 23, elevation, 831.15 ft (253.33 m).

01380900 BOONTON RESERVOIR.--Lat 40°53'. long 74°24', Morris County, Hydrologic Unit 02030103, at dam on Rockaway River at Boonton, NJ. DRAINAGE AREA, 119 mi^2 (308 km^2). PERIOD OF RECORD, April 1904 to September 1950, October 1953 to current year. Monthend contents only 1904-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, hook gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by a cyclopean masonry dam with earth wings; dam completed and storage began in 1904. Total capacity at spillway level, 7,620,000,000 gal (28.84 hm^3) elevation, 305.25 ft (93.040 m) of which 7,366,000,000 gal (27.88 hm^3) is usable contents above elevation 259.75 ft (79.172 m), sill of lowest outlet gate. Flow regulated by flashboards, 3 outlets in gatehouse at head of conduit and by two 48-inch (1.22 m) pipes (bottom of sluice pipes at elevation 205 ft or 62 m). Water is diverted from reservoir for municipal supply of Jersey City. Records furnished by Jersey City, Bureau of Water.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,413,000,000 gal (31.84 hm^3) May 13, 1981, elevation, 308.30 ft (93.970 m); minimum, 1,445,000,000 gal (5.47 hm^3) Jan. 31, 1981, elevation 274.71 ft (83.732 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,325,000,000 gal (31.51 hm^3) Apr. 28, 29, elevation, 307.96 ft (93.87 m); minimum, 4,610,000,000 gal (17.45 hm^3) Dec. 1, elevation, 292.84 ft (89.26 m).

01382100 CANISTEAR RESERVOIR.--Lat 41°06'30", long 74°29'30", Sussex County, Hydrologic Unit 02030103, at dam on Pacock Brook, 1.8 mi (2.9 km) northeast of Stockholm, NJ. DRAINAGE AREA, 5.6 mi^2 (14.5 km^2). PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, stage gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earth-embankment type dam, completed about 1896. Capacity at spillway level, 2,407,000,000 gal (9.110 hm^3), elevation, 1,086.0 ft (331 m). Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and for diversion at Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply for City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam. Records furnished by City of Newark, Division of Water Supply.

01382200 OAK RIDGE RESERVOIR.--Lat 41°02'30", long 74°30'10", Passaic County, Hydrologic Unit 02030103, at dam on Pequannock River, 0.9 mi (1.4 km) southwest of Oak Ridge, NJ. DRAINAGE AREA, 27.3 mi^2 (70.7 km^2). PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents only 1924-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam with concrete-core wall and ogee overflow section; dam constructed between 1880-92; dam raised 10 ft (3 m) during 1917-19. Capacity at spillway level, 3,895,000,000 gal (14.74 hm^3), elevation, 846.0 ft (257.86 m). Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and diversion at Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply of City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam. Records furnished by City of Newark, Division of Water Supply.

01382300 CLINTON RESERVOIR.--Lat 41°04'30", long 74°27'00", Passaic County, Hydrologic Unit 02030103, at dam on Clinton Brook, 2.0 mi (3 km) north of Newfoundland, NJ. DRAINAGE AREA, 10.5 mi^2 (27.2 km^2). PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents only 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam constructed between 1889-92. Capacity at spillway level, 3,518,000,000 gal (13.32 hm^3), elevation, 992.0 ft (302.36 m). Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and for diversion at Charlotteburg Reservoir since May 21, 1961, for municipal supply of City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam. Records furnished by City of Newark, Division of Water Supply.

01382380 CHARLOTTEBURG RESERVOIR.--Lat 41°01'34", long 74°25'30", Passaic County, Hydrologic Unit 02030103, at dam on Pequannock River, 1.1 mi (1.8 km) upstream from Macopin River, and 1.5 mi (2.4 km) southeast of Newfoundland, NJ. DRAINAGE AREA, 56.2 mi^2 (145.6 km^2). PERIOD OF RECORD, May 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete-masonry dam and earth embankment, with concrete spillway at elevation 738.00 ft (224.942 m); storage began May 19, 1961. Spillway equipped with Bascule gate 5 ft (1.5 m) high. Capacity, 2,964,000,000 gal (11.22 hm^3), elevation, 743.00 ft (226.466 m), top to Bascule gate. No dead storage. Outflow is controlled by sluice and automatic Bascule gates. Water diverted from reservoir since May 21, 1961, for municipal supply of City of Newark. Records furnished by City of Newark, Division of Water Supply.

REVISION.--WRD-NJ 1974: Station number.

RESERVOIRS IN PASSAIC RIVER BASIN--Continued

01382400 ECHO LAKE.--Lat 41°03'00", long 74°24'30", Passaic County, Hydrologic Unit 02030103, at Echo Lake Dam on Macopin River, 1.6 mi (2.6 km) north of Charlotteburg, NJ, and 1.9 mi (3.1 km) upstream from mouth. DRAINAGE AREA, 4.35 mi^2 (11.27 km^2). PERIOD OF RECORD, October 1927 to September 1950, October 1953 to current year. Monthend contents only 1928-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Lake is formed by earth-embankment type dam completed about 1925. Capacity at spillway level, 1,583,000,000 gal (5.99 hm^3), elevation, 893.0 ft (272.19 m), with provision for additional storage of 180,000,000 gal (0.681 hm^3) at elevation 894.9 ft (272.77 m) with flashboards. Usable contents, 1,045,000,000 gal (3.96 hm^3) above elevation 880.0 ft (268.22 m). Lake used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and water diverted to Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply of City of Newark. Outflow to Macopin River controlled by operation of gates in gatehouse at dam and water released through pipe and canal to Charlotteburg Reservoir. Records furnished by City of Newark, Division of Water Supply.

01383000 GREENWOOD LAKE.--Lat 41°09'36", long 74°20'03", Passaic County, Hydrologic Unit 02030103, in gatehouse near right end of Greenwood Lake Dam on Wanaque River at Awosting. DRAINAGE AREA, 27.1 mi^2 (7.02 mi^2). PERIOD OF RECORD, June 1898 to November 1903, June 1907 to current year (gage heights only prior to October 1953). GAGE, water-stage recorder. Datum of gage is 608.86 ft (185.58 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Oct. 1, 1931, staff gage on former railroad bridge at site 100 ft (30 m) upstream at datum 89.75 ft (27.36 m) lower.

Reservoir is formed by earthfill dam with concrete spillway; dam completed about 1837 and reconstruction completed in 1928 with crest of spillway 0.25 ft (0.08 m) lower. Usable capacity, 6,860,000,000 gal (25.96 hm^3) between gage heights -4.00 ft (-1.22 m), sill of gate, and 10.00 ft (3.0 m), crest of spillway. Dead storage, 7,140,000,000 gal (27.02 hm^3). Outflow mostly regulated by two gates, 3.5 by 5.0 ft (1.1 m by 1.5 m). Records given herein represent usable capacity. Lake used for recreation.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 9,528,000,000 gal (36.07 hm^3) Oct. 9-14, 1903, gage height, 14.25 ft (4.343 m), present datum; minimum, 3,160,000,000 gal (11.96 hm^3) several days in November 1900, gage height, 3.50 ft (1.067 m), present datum.

EXTREMES FOR CURRENT YEAR: Maximum contents, 7,493,000,000 gal (28.36 hm^3) Jan. 5, gage height, 11.02 ft (3.359 m); minimum, 6,732,000,000 gal (25.48 hm^3) Nov. 4, gage height, 9.79 ft (2.984 m).

01386990 WANAQUE RESERVOIR.--Lat 41°02'33", long 74°17'36", Passaic County, Hydrologic Unit 02030103, at Raymond Dam on Wanaque River at Wanaque. DRAINAGE AREA, 90.4 mi^2 (234.1 km^2). PERIOD OF RECORD, February 1928 to September 1950, October 1953 to current year. Monthend contents only 1928-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by North Jersey District Water Supply Commission).

Reservoir is formed by earthfill with concrete-core wall main dam and seven secondary dams; dams completed in 1927 and storage began in March 1928. Total capacity of spillway level, 28,010,000,000 gal (106.02 hm^3) elevation, 300.3 ft (91.5 m). Capacity available by gravity at spillway level, 26,230,000,000 gal (99.28 hm^3). Outflow mostly controlled by sluice gates in intake conduits in gage house. Water is diverted from reservoir for municipal supply. Diversion to reservoir from Post Brook and Ramapo River (see Passaic River Basin, diversions). Records furnished by North Jersey District Water Supply Commission.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 30,814,000,000 gal (1,166.63 hm^3) Mar. 31, 1951, elevation, 303.93 ft (92.638 m); minimum, 5,110,000,000 gal (19.34 hm^3) Dec. 26, 1964, elevation, 256.06 ft (78.047 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 29,852,000,000 gal (112.99 hm^3) June 17, elevation, 302.79 ft (92.290 m); minimum, 12,202,000,000 gal (46.18 hm^3) Dec. 1, elevation, 274.43 ft (83.65 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01379990	SPLITROCK RESERVOIR *		01380900	BOONTON RESERVOIR *		01382100	CANISTEAR RESERVOIR †	
Sept. 30	831.30	2,604	-	297.01	5,562	-	1,075.20	1,377	-
Oct. 31	835.55	2,490	+2.2	294.96	5,083	-23.9	1,075.80	1,429	+2.6
Nov. 30	831.55	2,649	0	292.92	4,628	-23.4	1,076.40	1,481	+2.7
Dec. 31	832.50	2,820	+8.5	298.18	5,843	-60.6	1,078.20	1,644	+8.1
CAL YR 1981	-	-	+4.6	-	-	+15.4	-	-	+1.9
Jan. 31	834.35	3,177	+17.8	305.32	7,638	-89.6	1,082.00	2,060	+20.7
Feb. 28	835.10	3,236	+8.2	305.48	7,680	+2.3	1,086.30	2,437	+20.8
Mar. 31	835.10	3,326	0	305.44	7,669	-.5	1,086.20	2,427	-.5
Apr. 30	835.40	3,385	+3.1	307.79	8,280	+31.5	1,086.20	2,427	0
May 31	835.20	3,346	-2.0	307.52	8,210	-3.5	1,086.10	2,417	-.5
June 30	835.35	3,375	+1.5	307.81	8,286	-3.9	1,086.30	2,437	+1.0
July 31	834.90	3,286	-4.5	307.14	8,111	-8.7	1,086.20	2,427	-.5
Aug. 31	834.95	3,296	+4.9	306.56	7,961	-7.5	1,086.10	2,417	-.5
Sept. 30	834.85	3,276	-1.0	305.88	7,784	-9.13	1,086.20	2,427	+.5
WTR YR 1982	-	-	+2.8	-	-	+9.4	-	-	+4.4

RESERVOIRS IN PASSAIC RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01382200	OAK RIDGE	RESERVOIR †	01382300	CLINTON	RESERVOIR †	01382380	CHARLOTTEBURG	RESERVOIR †
Sept. 30	829.00	1,738	-	983.50	2,433	-	731.35	1,780	-
Oct. 31	824.00	1,256	-24.0	980.30	2,090	-17.1	732.60	1,889	+5.4
Nov. 30	820.00	928	-16.9	979.10	1,964	-6.5	730.60	1,716	-8.9
Dec. 31	818.50	818	-5.5	976.00	1,644	-16.0	730.00	1,666	-2.5
CAL YR 1981	-	-	+1.4	-	-	+5.7	-	-	+0.5
Jan. 31	827.60	1,593	+38.7	981.40	2,208	+28.1	730.00	1,666	0
Feb. 28	836.70	2,644	+58.1	986.40	2,782	+31.7	727.95	1,496	-9.4
Mar. 31	843.90	3,599	+47.7	990.50	3,326	+27.2	727.95	1,496	0
Apr. 30	846.20	3,924	+16.7	992.30	3,556	+11.9	743.20	2,989	+77.0
May 31	846.10	3,909	-.7	992.20	3,544	-.6	739.50	2,568	-21.0
June 30	346.20	3,924	+.7	992.30	3,556	+.7	743.30	3,002	+22.4
July 31	846.10	3,909	-.7	992.10	3,531	-1.3	737.20	2,324	-33.8
Aug. 31	841.90	3,326	-29.1	992.00	3,518	-.6	730.35	1,696	-31.4
Sept. 30	834.70	2,390	-48.2	987.40	2,920	-30.8	732.35	1,868	+8.9
WTR YR 1982	-	-	+2.8	-	-	+2.1	-	-	+.4

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Gage height	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01382400	ECHO LAKE †		01383000	GREENWOOD	LAKE **	01386990	WANAQUE	RESERVOIR †
Sept. 30	884.20	849	-	9.35	6,464	-	283.42	16,852	-
Oct. 31	884.80	895	+2.3	9.74	6,701	+11.8	279.16	14,550	-114.9
Nov. 30	884.50	871	-1.2	9.96	6,836	+6.96	274.61	12,285	-116.8
Dec. 31	884.50	871	0	10.15	6,953	-5.8	279.68	14,820	-126.5
CAL YR 1981	-	-	-.9	-	-	+.2	-	-	+24.3
Jan. 31	887.50	1,112	-12.0	10.59	7,226	+13.6	289.95	20,790	-298
Feb. 28	890.40	1,353	+13.3	10.58	7,220	-.3	297.69	26,073	+291.3
Mar. 31	891.20	1,423	+3.5	10.29	7,040	-9.0	300.09	27,852	+89.3
Apr. 30	893.20	1,601	+9.2	10.33	7,065	+1.3	302.61	29,788	+99.8
May 31	893.00	1,583	+.9	10.34	7,071	-.3	301.77	29,146	-32.0
June 30	893.40	1,621	+2.0	10.64	7,257	-9.6	302.62	29,796	-33.5
July 31	892.80	1,564	-2.8	10.16	6,959	-14.9	300.78	28,384	-70.5
Aug. 31	893.00	1,583	+1.0	10.02	6,872	-4.3	298.38	26,566	-90.7
Sept. 30	893.00	1,583	0	10.05	6,891	+1.0	295.25	24,345	-114.5
WTR YR 1982	-	-	+3.1	-	-	+1.8	-	-	+31.8

* Elevation at 0900.
** Gage height at 2400.
† Elevation at 0800 on first day of following month.

DIVERSIONS IN PASSAIC RIVER BASIN

01379510 Commonwealth Water Company diverts water from Passaic River, 1.2 mi (1.9 km) upstream from Canoe Brook for municipal supply. These figures also include water diverted from the Passaic River by the Bernards Division of the Commonwealth Water Company. Records furnished by Commonwealth Water Company.

01379530 Commonwealth Water Company diverts water from Canoe Brook near Summit, 0.5 mi (0.8 km) from mouth, for municipal supply. Records furnished by Commonwealth Water Company.

01380800 Jersey City diverts water from Boonton Reservoir on Rockaway River at Boonton for municipal supply. Records furnished by Jersey City, Bureau of Water.

01382370 City of Newark diverts water from Charlotteburg Reservoir on Pequannock River since May 21, 1961 for municipal supply. Prior to May 21, 1961 water was diverted from reservoir formed by Macopin intake dam on Pequannock River (former diversion 01382490). Records furnished by City of Newark, Division of Water Supply.
CORRECTION.--The station number for the diversion from Charlotteburg Reservoir has been corrected to 01382370.

01386980 North Jersey District Water Supply Commission diverts water for municipal supply from Wanaque Reservoir on Wanaque River. Records furnished by North Jersey District Water Supply Commission.

01387020 North Jersey District Water Supply Commission diverts water from Post Brook near Wanaque into Wanaque Reservoir. Records no longer available.

01387990 North Jersey District Water Supply Commission diverts water from Ramapo River by pumping from Pompton Lakes into Wanaque Reservoir. Records furnished by North Jersey District Water Supply Commission.

01388490 Passaic Valley Water Commission supplements the dependable yield of its supply at Little Falls by diverting water at high flows at the Jackson Avenue Pumping Station into Point View Reservoir on Haycock Brook for release as required to sustain minimum flow requirements. Also water may be released into Haycock Brook for maintenance of flow in that stream. These diversions and releases occur upstream of Pompton Plains gaging station. Records furnished by Passaic Valley Water Commission. No diversion or release during the year.
CORRECTION.--The station number for diversions to and releases from Point View Reservoir at the Jackson Avenue Pumping station on the Pompton River has been changed to differentiate it from the gaging station at Jackson Avenue.

01389490 The Passaic Valley Water Commission diverts water from Passaic River above Beattie's Dam at Little Falls for municipal supply. Records furnished by Passaic Valley Water Commission.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

MONTH	COMMONWEALTH WATER COMPANY FROM PASSAIC RIVER 01379510	COMMONWEALTH WATER COMPANY FROM CANOE BROOK 01379530	JERSEY CITY 01380800	NEWARK 01382370	FROM WANAQUE RESERVOIR 01386980	FROM RAMAPO RIVER TO WANAQUE RESERVOIR 01387990	PASSAIC VALLEY WATER COMMISSION 01389490
October......	8.92	2.52	82.0	67.8	170	12.4	92.9
November.....	3.28	1.00	83.1	63.8	168	15.9	91.4
December.....	67.4	8.17	84.3	98.4	152	151	89.7
CAL YR 1981..	19.3	4.50	87.2	82.1	153	60.5	77.3
January......	21.3	10.6	89.7	73.8	167	168	74.8
February.....	5.16	4.92	81.0	91.8	154	150	75.4
March........	15.7	2.36	89.0	77.8	150	51.6	75.7
April........	30.8	3.04	83.3	102.2	118	0	74.9
May..........	19.0	5.87	83.2	118.3	111	0	75.5
June.........	2.84	5.18	86.2	110.0	106	0	74.7
July.........	0	2.13	11.0	126.9	135	0	74.0
August.......	0	1.06	6.0	125.8	129	0	75.0
September....	0	1.42	10.1	111.1	123	0	75.2
WTR YR 1982..	14.7	3.58	65.6	97.4	140	45.3	79.1

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ

LOCATION.--Lat 40°40'30", long 74°13'20", Union County, Hydrologic Unit 02030104, on left bank at Ursino Lake Dam in Elizabeth, 75 ft (23 m) upstream of bridge on Trotters Lane and 3.8 mi (6.1 km) upstream from mouth.

DRAINAGE AREA.--16.9 mi² (43.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 1552: Drainage area, 1922-23, 1927-29(M), 1932, 1933-34(M), 1938(P), 1942(M) 1944(P), 1945(M), 1948(P), 1952-53(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1922, nonrecording gage at site 2,800 ft (850 m) downstream at datum 4.14 ft (1.262 m) higher and Oct. 1, 1922 to May 18, 1923, at same site at datum 5.23 ft (1.594 m) higher. May 19, 1923 to Dec. 27, 1972, at site 2,800 ft (850 m) downstream at datum 5.23 ft (1.594 m) higher and published as "Elizabeth River at Elizabeth" (station 01393500).

REMARKS.--Water-discharge records fair except those from Oct. 1 to 22 and Dec. 13 to June 29, which are poor. Diversion by pumpage from Hammock Well Field in Union, for municipal supply by Elizabethtown Water Co., probably reduces the flow past the station.

AVERAGE DISCHARGE.--61 years, 25.6 ft³/s (0.725 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,110 ft³/s (116 m³/s) Aug. 28, 1971, gage height, 18.7 ft (5.70 m) from floodmark, site and datum then in use, from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of contracted-opening measurement of peak flow; no flow many times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Elevation (ft)	Elevation (m)
Jan. 4	----	*2500	70.8	----	----
Feb. 3	----	1700	48.1	----	----

Minimum daily discharge, 3.4 ft³/s (0.096 m³/s) Nov. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	3.4	120	113	240	8.3	20	11	9.6	21	7.7	18
2	46	3.5	183	43	44	9.2	9.7	9.1	15	11	7.1	26
3	5.0	3.9	17	17	560	9.2	160	8.7	7.8	8.8	7.8	65
4	5.0	4.0	8.4	900	200	10	210	9.2	8.1	21	7.4	8.0
5	4.5	3.9	5.7	200	47	14	21	8.5	13	9.1	51	4.9
6	14	53	4.5	47	35	20	24	8.3	13	7.0	17	4.7
7	15	5.5	3.8	35	22	109	23	8.2	44	6.9	8.7	4.7
8	6.0	4.3	6.1	25	15	60	21	7.4	14	7.6	6.2	5.1
9	4.5	4.5	191	16	20	12	17	6.7	11	8.1	118	5.4
10	4.0	4.9	132	13	17	15	19	6.7	9.6	21	21	5.5
11	4.0	4.8	25	11	12	16	15	6.9	8.9	6.9	22	5.4
12	4.5	4.6	8.3	10	10	17	11	7.0	7.8	6.1	28	4.3
13	4.5	4.5	5.9	13	9.6	18	12	9.0	138	6.9	8.8	4.9
14	5.0	3.9	8.0	16	8.8	15	11	7.0	130	7.1	6.9	5.8
15	5.0	5.2	168	15	9.0	15	8.9	5.9	16	6.9	5.7	5.9
16	4.5	10	205	12	10	16	8.0	5.1	19	7.4	6.4	5.6
17	4.5	31	31	11	9.4	21	9.1	6.2	165	7.8	7.1	4.7
18	40	29	22	9.5	8.6	13	89	6.5	20	6.7	6.8	4.5
19	15	5.9	14	9.5	32	18	11	6.2	12	7.4	6.6	3.7
20	5.0	53	10	12	20	17	8.1	6.4	11	13	6.4	31
21	4.5	7.5	8.0	12	15	20	7.0	6.7	11	62	5.5	12
22	4.8	5.1	8.0	11	13	18	6.3	5.8	10	8.5	4.1	20
23	59	5.1	20	35	11	18	6.5	22	16	7.2	23	99
24	36	5.1	20	40	9.5	18	6.0	12	10	6.7	11	10
25	5.8	4.8	14	15	9.0	19	5.1	32	9.6	5.9	173	6.2
26	79	4.0	9.2	10	8.5	22	145	8.1	9.1	6.2	19	4.5
27	39	4.1	18	9.2	7.7	18	130	6.2	8.1	7.4	10	66
28	48	3.8	16	8.7	7.5	17	240	8.5	8.8	214	7.3	9.5
29	6.8	3.6	6.9	8.7	---	18	70	150	8.8	135	5.1	6.3
30	5.3	4.0	6.3	9.0	---	19	15	12	126	17	5.2	5.6
31	4.2	---	5.9	30	---	25	---	9.5	---	10	6.1	---
TOTAL	496.4	289.9	1301.0	1716.6	1410.6	644.7	1338.7	422.8	890.2	677.6	625.9	462.2
MEAN	16.0	9.66	42.0	55.4	50.4	20.8	44.6	13.6	29.7	21.9	20.2	15.4
MAX	79	53	205	900	560	109	240	150	165	214	173	99
MIN	4.0	3.4	3.8	8.7	7.5	8.3	5.1	5.1	7.8	5.9	4.1	3.7

CAL YR 1981 TOTAL 6280.5 MEAN 17.2 MAX 368 MIN 2.8
WTR YR 1982 TOTAL 10276.6 MEAN 28.2 MAX 900 MIN 3.4

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 10...	1330	E17	1260	7.3	5.0	10.8	>25	50	<200	173
MAR 30...	1130	19	629	8.4	10.5	15.1	--	13	8	224
JUN 09...	1045	11	600	7.8	18.0	7.8	3.6	>2400	>2400	194
JUL 15...	1200	8.4	790	8.2	26.0	12.8	6.9	92000	7900	240
AUG 10...	1000	20	295	6.7	23.5	7.0	4.6	16000	35000	79

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 10...	56	8.1	180	2.6	71	--	72	300	.1
MAR 30...	70	12	38	1.8	140	--	61	79	.1
JUN 09...	61	10	39	3.1	128	<.5	55	54	.1
JUL 15...	73	14	53	3.3	140	--	61	100	.1
AUG 10...	25	4.1	22	1.7	46	--	28	36	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 10...	11	700	--	1.9	.210	1.00	2.9	.40	21
MAR 30...	12	443	.100	2.0	.370	E.75	--	.28	4.0
JUN 09...	14	362	.040	1.9	<.050	.68	2.6	.25	5.5
JUL 15...	15	485	.130	1.7	.470	1.50	3.2	.73	6.0
AUG 10...	7.1	173	.030	.80	E.180	1.10	1.9	.45	8.7

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 09...	1045	30	2	<10	150	1	30	51

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN 09...	410	9	120	<.1	27	<1	90	5

01393950 WEST BRANCH RAHWAY RIVER AT WEST ORANGE, NJ

LOCATION.--Lat 40°47'01", long 74°16'27", Essex County, Hydrologic Unit 02030104, at bridge on Mountain Avenue, 300 ft (92 m) downstream of Turtle Brook, and 400 ft (122 m) southeast of intersection with Pleasant Valley Way in West Orange.

DRAINAGE AREA.--2.52 mi² (6.53 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1982 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JUL 19...	1230	--	8.3	25.5	11.7	1.6	7900	1100	185
AUG 16...	1030	680	7.6	19.0	9.5	1.5	230	2200	203

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
JUL 19...	46	17	35	1.1	75	30	130	<.1	11
AUG 16...	50	19	38	.9	74	31	130	<.1	8.7

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JUL 19...	436	.030	.20	.130	.71	.91	.09	2.5
AUG 16...	393	.010	.90	.060	.36	1.3	.09	3.0

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ

LOCATION.--Lat 40°41'11", long 74°18'44", Union County, Hydrologic Unit 02030104, on left bank 50 ft (15 m) downstream from bridge on U.S. Highway 22, 100 ft (30 m) downstream from Pope Brook, and 1.5 mi (2.4 m) south of Springfield.

DRAINAGE AREA.--25.5 mi^2 (66.0 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to current year.

REVISED RECORDS.--WSP 1622: 1945. WRD-NJ 1973: 1938(M), 1968(M), 1971(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 66.17 ft (20.169 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those below 10 ft^3/s (0.28 m^3/s), which are fair. Water for municipal supply diverted from river by city of Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., and Springfield station of Elizabethtown Water Co.

AVERAGE DISCHARGE.--44 years, 28.2 ft^3/s (0.799 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft^3/s (154 m^3/s) Aug. 2, 1973, gage height, 9.76 ft (2.975 m) from floodmark, from rating curve extended above 1,600 ft^3/s (35.2 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.1 ft^3/s (0.003 m^3/s) Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (18.4 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Jan. 4	1215	*1650	46.7	6.92	2.109

Minimum daily discharge, 3.0 ft^3/s (0.085 m^3/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	5.0	60	110	227	7.7	20	24	9.7	9.6	5.8	11
2	50	5.9	184	44	43	7.8	10	19	13	7.8	5.5	18
3	4.4	8.6	20	18	547	8.0	161	17	7.2	13	5.5	53
4	3.2	9.8	7.9	883	129	10	212	16	7.2	10	5.5	6.2
5	3.0	11	6.1	179	46	20	33	14	18	6.7	82	5.1
6	16	47	4.5	48	29	10	36	13	21	6.6	12	4.8
7	19	5.6	4.6	31	20	106	36	12	50	6.5	5.8	5.1
8	4.7	4.8	26	22	15	61	33	11	12	6.6	5.5	5.2
9	3.7	5.6	7.4	17	21	20	29	10	7.8	13	70	4.8
10	3.9	5.8	4.5	13	17	15	36	9.5	7.1	5.8	9.4	4.7
11	3.7	6.0	4.4	12	12	16	44	9.7	6.6	5.8	13	5.1
12	4.3	5.5	4.3	11	10	18	39	9.8	6.6	6.3	20	4.7
13	4.0	5.3	3.9	9.6	9.7	16	27	10	139	6.0	6.5	4.9
14	4.8	5.9	5.3	9.6	9.0	14	23	9.4	133	5.7	6.1	5.2
15	4.9	6.7	163	9.6	9.2	11	18	9.2	21	6.0	5.7	5.0
16	4.3	9.5	203	9.0	10	11	15	8.6	24	5.8	5.7	4.6
17	4.1	17	32	8.7	9.7	26	17	8.6	173	5.7	6.0	3.9
18	41	22	19	9.6	8.9	16	87	8.4	22	5.3	6.9	4.0
19	16	5.8	13	10	31	13	22	7.5	13	8.7	5.1	3.9
20	4.9	34	10	10	17	11	15	7.8	11	28	5.5	26
21	4.9	7.2	8.7	9.2	14	14	13	7.8	9.8	11	4.8	12
22	5.1	5.3	8.8	9.5	12	11	12	7.5	9.4	5.5	4.6	13
23	57	4.9	21	33	10	11	10	27	20	5.4	8.8	68
24	21	5.2	21	40	9.6	9.5	12	13	8.3	5.3	13	5.2
25	5.8	5.2	13	15	8.7	9.5	11	38	7.8	5.0	80	4.0
26	49	5.3	9.7	10	8.0	12	142	8.3	7.4	6.2	8.0	3.9
27	29	6.2	19	9.2	8.3	8.7	126	7.4	7.1	5.6	6.6	63
28	22	5.0	17	8.9	8.1	8.1	239	8.5	7.1	233	6.1	5.5
29	6.9	4.8	11	8.9	---	8.3	47	151	97	26	5.7	4.7
30	6.3	4.9	9.7	8.9	---	9.0	30	17	33	7.0	6.0	5.1
31	5.6	---	8.9	32	---	26	---	16	---	6.3	6.4	---
TOTAL	421.9	280.8	930.7	1648.7	1299.2	544.6	1555	536.0	909.1	485.2	437.5	369.6
MEAN	13.6	9.36	30.0	53.2	46.4	17.6	51.8	17.3	30.3	15.7	14.1	12.3
MAX	57	47	203	883	547	106	239	151	173	233	82	68
MIN	3.0	4.8	3.9	8.7	8.0	7.7	10	7.4	6.6	5.0	4.6	3.9

CAL YR 1981 TOTAL 6330.6 MEAN 17.3 MAX 448 MIN 1.7
WTR YR 1982 TOTAL 9418.3 MEAN 25.8 MAX 883 MIN 3.0

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 10...	1100	17	1630	7.5	1.5	11.9	4.4	2400	490	133
MAR 30...	1330	9.6	505	8.7	9.0	17.3	--	17	11	173
JUN 09...	1330	7.7	484	7.9	18.0	7.2	1.2	920	1600	147
JUL 19...	1100	6.0	525	7.0	26.0	5.2	3.9	<200	<200	166
AUG 05...	1200	5.5	500	7.4	23.0	6.3	1.8	79	130	171

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 10...	41	7.5	260	6.1	51	--	39	470	.1
MAR 30...	51	11	33	1.4	90	--	36	81	.1
JUN 09...	44	9.1	32	2.0	86	<.5	28	64	<.1
JUL 19...	50	9.9	26	1.6	98	--	36	70	.1
AUG 05...	52	10	28	1.7	104	--	39	63	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 10...	11	906	--	1.5	.230	.49	2.0	.18	3.8
MAR 30...	7.9	334	.050	.80	<.050	E.45	--	.12	3.1
JUN 09...	13	290	.040	1.1	.130	.65	1.8	.31	2.6
JUL 19...	9.6	337	.040	.50	.120	.69	1.2	.37	3.6
AUG 05...	11	292	.010	.70	.120	.61	1.3	.06	3.4

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 09...	1330	20	1	<10	70	<1	10	16

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN 09...	570	13	120	<.1	6	<1	20	<1

01395000 RAHWAY RIVER AT RAHWAY, NJ

LOCATION.--Lat 40°37'05", long 74°17'00", Union County, Hydrologic Unit 02030104, on left bank 100 ft (30 m) upstream from St. Georges Avenue bridge in Rahway and 0.9 mi (1.4 km) upstream from Robinsons Branch.

DRAINAGE AREA.--40.9 mi^2 (105.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1908 to April 1915 (gage heights and discharge measurements only), October 1921 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1930-31(M), 1937. WDR NJ-79-1: 1978.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8.77 ft (2.673 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 25, 1934, nonrecording gage at site 40 ft (12 m) downstream from Church Street and 1,500 ft (460 m) downstream from present site at datum 2.77 ft (0.844 m) lower.

REMARKS.--Water-discharge records poor. Water for municipal supply diverted from river by Rahway and Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., and Springfield station of Elizabethtown Water Co.

AVERAGE DISCHARGE.--61 years (water years 1922-82), 46.7 ft^3/s (1.323 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,420 ft^3/s (153 m^3/s) Aug. 2, 1973, gage height, 7.88 ft (2.402 m), from rating curve extended above 3,000 ft^3/s (85 m^3/s); no flow part or all of some days in many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s (17.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 2	0130	634	18.0	3.26	0.994	Apr. 26	2330	628	17.8	3.14	0.956
Jan. 4	1215	*1820	51.5	4.83	1.472	June 14	0030	651	18.4	3.19	0.972
Feb. 3	1730	1140	32.3	3.99	1.216	July 28	1245	714	20.2	3.30	1.006
Apr. 3	2345	928	26.3	3.63	1.107						

No flow part or all of many days in many months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	6.4	36	119	340	8.9	62	41	21	22	6.2	2.0
2	61	2.8	379	96	130	9.9	12	33	27	10	3.1	17
3	8.9	7.2	50	27	814	9.3	153	28	15	16	2.2	73
4	4.9	3.2	20	1040	432	13	576	27	13	29	3.6	12
5	4.9	2.4	16	919	91	45	92	23	27	12	49	4.0
6	6.2	67	12	94	50	18	73	21	59	5.6	87	1.6
7	14	19	8.4	47	36	127	74	20	107	4.1	14	.95
8	2.1	3.5	24	30	28	172	60	18	30	5.1	5.1	1.2
9	.00	.00	30	22	31	36	70	16	16	5.8	84	1.5
10	.00	.00	11	16	39	24	61	15	11	5.2	30	.88
11	.00	3.4	8.0	15	24	23	83	14	9.6	.17	6.9	.76
12	.00	.07	9.4	15	20	26	79	15	8.4	2.7	31	.00
13	.00	1.5	8.1	15	19	22	52	18	140	4.2	6.5	.00
14	.00	1.1	7.3	16	19	20	41	14	357	9.8	.61	.00
15	.00	3.4	251	17	18	14	31	11	53	1.3	.76	.59
16	.00	12	363	16	22	14	26	9.2	42	.00	.43	1.5
17	.00	15	79	12	21	36	26	7.4	335	.00	.28	1.4
18	4.9	51	29	9.8	18	24	177	10	60	.00	1.2	.35
19	54	11	20	14	45	17	50	8.8	27	.00	1.4	.00
20	6.5	46	16	13	51	14	31	6.9	18	43	.33	9.9
21	6.9	23	13	16	29	16	24	9.7	14	50	.58	41
22	.73	6.6	13	14	26	15	22	9.1	14	5.9	.19	19
23	33	.94	21	43	24	13	19	34	33	.51	.06	101
24	83	3.1	27	117	21	11	20	51	13	.00	9.8	20
25	11	4.1	19	28	18	10	17	87	10	.00	130	3.7
26	67	3.9	16	21	15	14	122	19	8.6	5.1	21	.86
27	48	4.8	18	21	17	12	343	10	5.5	8.1	6.2	100
28	50	4.4	35	20	10	8.1	371	10	5.0	359	.68	19
29	13	.40	19	18	---	6.6	107	298	113	162	.25	7.4
30	8.4	.00	16	17	---	8.7	56	53	109	20	.19	17
31	7.6	---	14	27	---	24	---	32	---	12	.48	---
TOTAL	496.03	307.21	1588.2	2894.8	2408	811.5	2930	969.1	1701.1	798.58	503.04	457.59
MEAN	16.0	10.2	51.2	93.4	86.0	26.2	97.7	31.3	56.7	25.8	16.2	15.3
MAX	83	67	379	1040	814	172	576	298	357	359	130	101
MIN	.00	.00	7.3	9.8	10	6.6	12	6.9	5.0	.00	.06	.00

CAL YR 1981 TOTAL 9090.86 MEAN 24.9 MAX 602 MIN .00
WTR YR 1982 TOTAL 15865.15 MEAN 43.5 MAX 1040 MIN .00

01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1952, 1962, 1967-70, and February 1979 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB 17...	1100	18	622	7.3	4.0	13.6	2.6	230	<20	160
APR 05...	1300	75	323	7.6	9.0	--	2.6	540	790	71
JUN 10...	1045	11	279	7.6	18.0	9.8	2.1	540	240	88
JUL 15...	1000	2.2	450	7.1	24.5	6.8	3.9	500	7900	160
AUG 05...	1000	6.2	270	7.1	24.0	7.8	3.7	<200	1300	93
SEP 28...	1330	12	225	6.4	19.0	9.5	20	2300	500	74

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 17...	49	9.9	60	2.1	83	--	45	100	<.1
APR 05...	21	4.6	33	1.6	34	--	24	59	<.1
JUN 10...	27	5.0	15	1.5	61	<.5	23	25	<.1
JUL 15...	47	9.3	23	1.5	104	--	37	45	.1
AUG 05...	29	5.1	13	1.9	64	--	27	21	.1
SEP 28...	23	4.0	11	1.8	47	--	18	21	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 17...	14	357	--	1.5	.380	.48	2.0	.18	2.5
APR 05...	7.2	195	.020	.90	.170	E.75	--	.30	4.4
JUN 10...	8.2	153	.020	.50	.080	.63	1.1	.25	3.5
JUL 15...	7.6	277	.020	.10	.210	.54	.64	.31	4.8
AUG 05...	8.0	182	<.010	.30	.120	.80	1.1	.31	6.5
SEP 28...	5.5	129	.010	.50	E.140	.64	1.1	.25	4.5

01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 10...	1045	30	3	<10	50	<1	10	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN 10...	550	7	150	.2	2	<1	20	8

01396001 ROBINSONS BRANCH RAHWAY RIVER AT MAPLE AVENUE, AT RAHWAY, NJ

LOCATION.--Lat 40°36'26", long 74°17'40", Union County, Hydrologic Unit 02030104, on right upstream abutment of bridge on Maple Avenue in Rahway, 2,000 ft (610 m) downstream from Milton Lake, 1.0 mi (1.6 km) downstream from Middlesex Reservoir dam, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--21.6 mi² (55.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1939 to current year. Prior to October 1, 1978, published as "Robinsons Branch Rahway River at Rahway, NJ" (sta 01396000).

REVISED RECORDS.--WDR-NJ-75-1: 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 11.3 ft (3.44 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Sept. 26, 1978, water-stage recorder above Milton Dam at datum 8.69 ft (2.649 m) higher.

REMARKS.--Water-discharge records good except those below 10 ft³/s (0.283 m³/s), which are fair. Water diverted for municipal supply by Middlesex Water Co., from Middlesex Reservoir, capacity, 300,000,000 gal (1.136 hm³), 1.0 mi (1.6 km) above station. No diversion during the year.

AVERAGE DISCHARGE.--43 years, 24.9 ft³/s (0.705 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,110 ft³/s (88.1 m³/s) July 15, 1975, gage height, 5.85 ft (1.783 m), from rating curve extended above 750 ft³/s (21 m³/s) on basis of flow over dam computation (site and datum then in use); maximum gage height, 6.02 ft (1.835 m) Aug. 15, 1969 (site and datum then in use); no flow many times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1115	*1200	34.0	5.92	1.804	June 17	0230	467	13.2	3.07	0.936
Feb. 3	1000	488	13.8	3.15	0.968	July 28	1000	613	17.4	3.62	1.103
Apr. 3	2230	756	21.4	4.14	1.262						

Minimum discharge, 0.22 ft³/s (0.006 m³/s) Dec. 13, 14, gage height, 0.41 ft (0.125 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.6	16	47	169	7.5	40	16	7.5	9.5	6.2	4.6
2	.84	2.4	34	33	99	8.1	12	13	14	5.8	4.5	8.2
3	26	2.7	31	16	376	8.2	154	11	6.9	13	5.0	37
4	5.5	2.4	29	539	231	11	311	11	5.6	17	3.8	6.8
5	.81	1.9	28	293	62	34	69	9.6	16	6.5	8.4	2.7
6	.44	29	28	75	29	17	41	9.3	22	4.9	9.8	2.7
7	5.5	13	28	25	19	92	37	8.9	32	4.5	4.6	3.9
8	22	5.1	27	16	13	109	36	8.7	13	4.5	4.0	3.4
9	4.5	3.5	26	11	15	30	44	9.6	8.3	4.1	26	3.3
10	1.4	3.4	26	9.5	21	19	40	6.6	5.7	3.4	23	2.6
11	.57	3.3	11	7.6	12	17	47	5.6	6.5	3.4	7.1	2.7
12	.42	3.2	.37	5.5	9.5	18	27	5.9	6.3	5.4	18	2.8
13	.43	2.0	.23	6.6	8.8	15	20	7.3	93	5.6	6.2	2.5
14	.44	2.0	.71	8.1	7.9	14	19	6.6	163	3.0	4.2	2.8
15	.48	3.2	22	7.7	7.7	10	13	5.7	26	3.3	4.5	3.4
16	.69	6.0	173	6.6	10	10	12	5.4	25	3.3	4.3	3.6
17	3.1	9.1	46	6.3	12	22	12	5.2	235	3.4	4.1	4.9
18	1.0	27	22	5.5	10	16	93	5.0	44	3.7	3.5	2.6
19	6.4	8.9	14	5.5	24	12	22	5.2	15	6.7	2.7	1.5
20	26	23	8.7	6.5	36	10	14	5.6	10	25	2.9	7.3
21	4.9	18	5.5	6.6	21	12	12	6.8	8.2	25	2.7	15
22	1.6	6.7	4.9	5.9	21	11	10	6.8	7.2	5.9	1.9	11
23	1.6	3.8	10	22	14	8.4	8.8	18	11	4.4	2.1	45
24	14	17	12	48	12	7.7	8.8	20	6.8	3.5	4.2	10
25	33	31	7.6	20	10	7.4	8.9	46	5.5	2.8	83	4.8
26	7.4	31	6.1	16	8.1	9.3	87	11	5.0	34	14	4.0
27	28	30	9.0	12	7.5	8.5	141	7.2	4.3	21	4.9	56
28	29	30	16	9.5	7.5	5.1	178	5.0	4.7	226	5.5	9.8
29	11	29	8.7	8.8	---	4.9	49	136	64	95	3.0	3.4
30	5.7	19	6.2	9.2	---	5.9	22	23	38	13	1.5	2.4
31	3.7	---	5.0	18	---	21	---	13	---	7.5	3.3	---
TOTAL	249.52	369.2	662.01	1306.4	1273.0	581.0	1588.5	454.0	909.5	574.1	278.9	270.7
MEAN	8.05	12.3	21.4	42.1	45.5	18.7	53.0	14.6	30.3	18.5	9.00	9.02
MAX	33	31	173	539	376	109	311	136	235	226	83	56
MIN	.42	1.9	.23	5.5	7.5	4.9	8.8	5.0	4.3	2.8	1.5	1.5

CAL YR 1981 TOTAL 4882.95 MEAN 13.4 MAX 265 MIN .13
WTR YR 1982 TOTAL 8516.83 MEAN 23.3 MAX 539 MIN .23

01396001 ROBINSONS BRANCH RAHWAY RIVER AT MAPLE AVENUE, AT RAHWAY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to June 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 17...	1330	13	277	7.2	3.5	13.6	E1.8	110	80	82
APR 05...	1045	59	158	7.5	8.5	--	3.3	540	16000	52
JUN 10...	1320	5.3	269	8.4	22.0	10.5	3.0	130	350	97

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 17...	25	4.7	22	2.9	32	--	36	30	<.1
APR 05...	16	2.9	9.1	1.7	26	--	24	12	.1
JUN 10...	30	5.4	12	2.3	64	<.5	34	14	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 17...	7.9	179	--	1.4	.400	.70	2.1	.25	6.3
APR 05...	4.5	103	.040	.90	.360	E1.30	--	.55	7.0
JUN 10...	4.1	164	.030	.40	.110	.95	1.3	.15	5.7

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 10...	1320	30	2	<10	80	1	10	7

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN 10...	180	4	60	.1	2	<1	10	<1

01396090 SOUTH BRANCH RARITAN RIVER AT OUTLET OF BUDD LAKE, NJ

LOCATION.--Lat 40°51'38", long 74°45'38", Morris County, Hydrologic Unit 02030105, at bridge on Smithtown Road, 200 ft (60 m) northwest of U.S. Route 46 and 0.5 mi (0.8 km) downstream from Budd Lake dam.

DRAINAGE AREA.--5.03 mi² (13.03 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 14...	1330	5.0	178	7.0	10.0	8.3	4.0	--	27	51
FEB 02...	1250	18	205	7.6	3.0	10.8	E1.5	20	7	51
MAR 31...	1150	16	189	7.1	6.0	11.1	--	<20	5	44
JUN 02...	1230	30	176	8.4	19.5	9.2	E3.9	20	920	45
JUL 08...	1145	14	180	7.0	22.0	4.8	4.0	130	130	49
AUG 17...	1230	15	173	7.3	20.0	7.7	3.3	50	130	50

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 14...	13	4.4	13	1.0	31	<.1	8.3	25	<.1
FEB 02...	13	4.5	17	1.0	25	--	13	29	.1
MAR 31...	11	3.9	17	.6	25	--	12	31	<.1
JUN 02...	11	4.2	20	.7	27	<.5	14	29	<.1
JUL 08...	12	4.6	19	.6	29	--	9.0	30	.1
AUG 17...	13	4.3	15	.7	36	--	8.0	26	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 14...	4.9	116	.008	.14	--	<.05	--	.25	4.3
FEB 02...	4.4	136	E.020	.20	--	.30	.50	.06	3.3
MAR 31...	3.0	126	.010	.20	.070	E.80	--	.09	4.0
JUN 02...	1.6	128	<.010	<.10	E.050	.90	--	.21	9.8
JUL 08...	5.3	114	E.010	<.10	E.110	.52	--	.45	9.9
AUG 17...	7.4	127	<.010	<.10	.080	.76	--	.18	5.9

01396090 SOUTH BRANCH RARITAN RIVER AT OUTLET OF BUDD LAKE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
14...	1330	10	25	<10	<10	1	30	11
JUN								
02...	1230	20	28	<10	40	<1	<10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
14...	1100	5	180	<.1	7	<1	40	--
JUN								
02...	1100	7	160	<.1	<1	<1	30	<1

01396280 SOUTH BRANCH RARITAN RIVER AT MIDDLE VALLEY, NJ

LOCATION.--Lat 40°45'40", long 74°49'18", Morris County, Hydrologic Unit 02030105, at bridge on Middle Valley Road in Middle Valley, 6.9 mi (11.1 km) downstream from Drakes Brook.

DRAINAGE AREA.--47.6 mi² (123.3 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1967, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
14...	1200	11	256	8.2	8.0	13.2	E1.9	--	240	91
FEB										
02...	1150	110	250	8.0	.5	14.8	E2.2	<20	33	52
MAR										
31...	1050	62	197	7.8	6.5	11.9	E1.6	<20	2	68
JUN										
02...	1130	170	156	7.4	16.0	9.4	E3.1	9200	>2400	51
JUL										
08...	1045	41	225	7.6	18.5	10.3	E2.0	330	920	84
AUG										
17...	1100	32	229	7.8	15.5	9.4	E1.4	170	540	87

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
14...	20	10	9.7	1.6	81	.1	10	14	<.1
FEB									
02...	12	5.4	26	1.5	31	--	12	41	.1
MAR									
31...	15	7.5	14	1.2	52	--	12	17	<.1
JUN									
02...	12	5.2	12	1.2	37	--	13	14	.1
JUL									
08...	18	9.5	13	1.0	64	--	11	20	<.1
AUG									
17...	19	9.5	11	.9	69	--	11	18	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
14...	9.3	149	.054	1.8	--	<.05	--	.67	2.6
FEB									
02...	9.2	138	E.040	1.1	--	.56	1.7	.18	1.8
MAR									
31...	7.7	120	.030	1.2	.070	E.45	--	.15	3.6
JUN									
02...	11	104	.030	.80	E.050	.85	1.6	.25	6.2
JUL									
08...	12	--	.030	1.4	E.080	.45	1.8	.34	1.9
AUG									
17...	13	155	.030	1.5	.080	.51	2.0	.37	2.7

01396280 SOUTH BRANCH RARITAN RIVER AT MIDDLE VALLEY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 14...	1200	530	.6	6.0	10	3	0	<10	<10	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 14...	20	2	<10	9	2	190	680	5	<10	10	210

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	.1	<.01	5	<10	<1	<1	30	32	4	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	<.1	2.0	<.1	.2	.6	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1

01396500 SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE, NJ

LOCATION.--Lat 40°40'40", long 74°52'46", Hunterdon County, Hydrologic Unit 02030105, on left bank 1.0 mi (1.6 km) northeast of High Bridge, and 4.4 mi (7.1 km) upstream from Spruce Run.

DRAINAGE AREA.--65.3 mi² (169.1 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1918 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 601: 1924. WSP 781: Drainage area. WSP 1552: 1919(M), 1920(M), 1921, 1923, 1924(M), 1927-28(M), 1934(M), 1941(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 28, 1930. Datum of gage is 282.10 ft (85.984 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Sept. 30, 1921, reference point at same site and datum.

REMARKS.--Water-discharge records good except those for period of ice effect, Jan. 12 to Feb. 3, which are fair. Slight diurnal fluctuation caused by small powerplant above station.

AVERAGE DISCHARGE.--64 years, 121 ft³/s (3.427 m³/s), 25.17 in/yr (639 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,910 ft³/s (196 m³/s) Jan. 25, 1979, gage height, 12.07 ft (3.679 m); maximum gage height, 12.23 ft (3.728 m) Feb. 24, 1979 (ice jam); minimum discharge, 6.6 ft³/s (0.19 m³/s) Oct. 11, 1930; minimum daily 13 ft³/s (0.37 m³/s) Aug. 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods occurred on Feb. 6, 1896, in February 1902, and October 1903. At High Bridge, according to reports of the New Jersey State Geologist, the discharges for these floods respectively were 7,560 ft³/s (214 m³/s), 3,840 ft³/s (109 m³/s) and 2,670 ft³/s (75.6 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1930	1540	43.6	9.09	2.771	Apr. 4	0230	1070	30.3	8.53	2.600
Feb. 1	2100	*3720	105	*a11.97	3.648	June 17	1030	1380	39.1	8.88	2.707
Feb. 3	1700	1770	50.1	-	-						

a Ice jam, occurred at 1400.

Minimum discharge, 29 ft³/s (0.82 m³/s) Oct. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	63	48	260	1280	89	144	208	118	130	51	43
2	67	59	381	237	1550	92	111	187	289	103	48	65
3	51	55	145	137	1190	91	260	167	133	101	48	90
4	41	51	98	837	665	82	540	158	113	113	47	57
5	38	49	84	610	298	102	226	145	101	93	45	47
6	37	67	74	277	238	106	219	135	118	84	40	45
7	41	67	65	227	201	227	200	130	154	78	45	42
8	38	53	82	200	186	245	191	121	113	75	45	43
9	35	49	99	176	179	136	194	118	96	70	325	43
10	33	47	71	144	160	118	189	111	85	66	282	42
11	32	46	63	109	133	137	248	104	81	65	108	40
12	30	44	63	108	119	213	252	101	77	74	95	39
13	31	42	57	100	116	190	228	103	185	70	75	38
14	30	42	57	96	107	179	205	97	366	62	65	38
15	30	42	112	90	109	146	177	91	152	59	60	38
16	30	57	162	87	145	134	164	86	122	58	56	39
17	30	60	111	82	148	166	161	83	854	56	53	38
18	32	51	96	80	113	157	283	80	240	54	51	36
19	55	47	79	76	121	141	196	77	181	52	48	36
20	42	74	80	73	148	132	170	77	157	74	46	36
21	35	92	177	72	160	140	162	79	137	83	46	40
22	33	61	201	70	143	148	145	75	124	56	43	46
23	38	54	138	100	124	124	132	90	127	51	42	77
24	81	51	148	155	118	117	126	100	113	49	43	58
25	53	48	98	120	103	113	121	85	105	46	77	44
26	79	46	79	105	89	146	248	76	100	45	63	41
27	98	45	81	95	92	134	454	70	96	63	49	126
28	379	46	103	88	91	109	544	68	97	116	47	78
29	120	43	93	82	---	107	267	299	154	103	44	54
30	82	42	82	80	---	104	224	150	367	61	42	48
31	69	---	70	96	---	112	---	135	---	55	41	---
TOTAL	1826	1594	3297	5069	8126	4237	6781	3606	5155	2265	2179	1507
MEAN	58.9	53.1	106	164	290	137	226	116	172	73.1	70.3	50.2
MAX	379	92	381	837	1550	245	544	299	854	130	325	126
MIN	30	42	48	70	89	82	111	68	77	45	41	36
CFSM	.90	.81	1.62	2.51	4.44	2.10	3.46	1.78	2.63	1.12	1.08	.77
IN.	1.04	.91	1.88	2.89	4.63	2.41	3.86	2.05	2.94	1.29	1.24	.86

CAL YR 1981 TOTAL 33369 MEAN 91.4 MAX 1620 MIN 28 CFSM 1.40 IN 19.01
WTR YR 1982 TOTAL 45642 MEAN 125 MAX 1550 MIN 30 CFSM 1.91 IN 26.00

01396535 SOUTH BRANCH RARITAN RIVER AT ARCH STREET AT HIGH BRIDGE, NJ

LOCATION.--Lat 40°39'49", long 74°53'52", Hunterdon County, Hydrologic Unit 02030105, at bridge on Arch Street in High Bridge, 0.9 mi (1.4 km) northeast of Mariannes Corner, 1.0 mi (1.6 km) downstream from Lake Solitude dam, and 4.3 mi (6.9 km) northeast of Norton.

DRAINAGE AREA.--68.8 mi² (178.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 14...	1030	61	251	8.5	7.5	12.2	E1.9	--	70	100
FEB 02...	1000	350	240	8.5	.0	14.9	E2.6	140	1600	43
MAR 31...	0950	--	204	8.4	7.0	12.3	E.8	330	>2400	72
JUN 02...	1000	450	144	7.8	15.5	9.8	E3.0	16000	>2400	53
JUL 08...	0945	90	225	7.9	20.0	9.6	E1.8	20	15	87
AUG 17...	0945	73	223	7.8	18.0	8.8	<1.1	230	350	90

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 14...	21	12	9.6	1.3	83	--	12	14	<.1
FEB 02...	10	4.4	24	1.7	24	--	12	39	.1
MAR 31...	16	7.9	11	.9	53	--	14	15	<.1
JUN 02...	12	5.5	9.4	1.2	37	<.5	14	9.9	<.1
JUL 08...	19	9.7	11	.9	68	--	11	13	.1
AUG 17...	20	9.7	9.9	1.2	71	--	12	15	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 14...	7.8	142	.016	1.2	--	<.05	--	.28	1.8
FEB 02...	7.8	131	E.030	1.0	--	.42	1.4	.18	11
MAR 31...	7.5	133	.020	1.0	<.050	E.35	--	.09	2.1
JUN 02...	11	107	.030	.90	E.050	.85	1.7	.31	6.1
JUL 08...	11	150	<.010	1.2	E.050	.42	1.6	.18	1.8
AUG 17...	12	131	.010	1.3	.060	.39	1.7	.28	3.3

01396535 SOUTH BRANCH RARITAN RIVER AT ARCH STREET AT HIGH BRIDGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
02...	1000	10	1	<10	40	<1	10	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
02...	2200	11	100	<.1	2	<1	50	<1

01396580 SPRUCE RUN AT GLEN GARDNER, NJ

LOCATION.--Lat 40°41'29", long 74°56'15", Hunterdon County, Hydrologic Unit 02030105, on right downstream wingwall of bridge on Sanatorium Road in Glen Gardner, 0.8 mi (1.3 km) downstream from Alpaugh Brook, and 2.0 mi (3.2 km) upstream from Spruce Run Reservoir.

DRAINAGE AREA.--12.3 mi^2 (31.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 389.10 ft (118.598 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft^3/s (51.5 m^3/s) Jan. 24, 1979, gage height, 7.60 ft (2.316 m), from high-water mark, from rating curve extended above 700 ft^3/s (19.8 m^3/s) on basis of slope-conveyance computation; minimum, 1.3 ft^3/s (0.037 m^3/s) Sept. 8, 1980, gage height, 1.76 ft (0.536 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (8.50 m^3/s), and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1030	*941	26.6	4.56	1.390	Apr. 3	1830	745	21.1	4.11	1.253
Feb. 3	1115	569	16.1	3.84	1.170	June 17	0100	838	23.7	4.33	1.320

Note.--Peak discharges above 700 ft^3/s (19.8 m^3/s) were determined on basis of slope-conveyance computation at gage height 7.60 ft (2.316 m).

Minimum discharge, 2.4 ft^3/s (0.068 m^3/s) Oct. 1, gage height 1.78 ft (0.543 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	6.5	9.0	71	15	11	22	29	17	11	5.1	4.4
2	11	6.1	90	33	31	11	15	26	33	8.5	4.9	6.5
3	4.7	5.7	18	18	240	11	127	24	18	14	4.6	9.0
4	3.8	5.4	12	245	74	10	68	23	15	11	4.2	4.5
5	3.6	5.2	10	60	37	16	33	21	13	10	4.3	3.8
6	3.8	10	9.0	38	30	14	33	20	17	9.5	4.2	3.7
7	4.3	7.5	8.2	33	22	53	31	20	18	8.5	3.9	3.6
8	3.7	6.0	14	27	20	35	29	18	12	8.3	4.2	3.7
9	3.4	5.5	14	23	20	22	30	18	9.8	7.6	25	3.6
10	3.4	5.1	9.4	16	18	20	34	16	8.9	6.8	15	3.5
11	3.4	4.9	8.1	14	15	26	49	15	8.9	7.7	7.3	3.4
12	3.4	4.9	8.0	12	15	34	45	14	8.4	8.8	8.7	3.3
13	3.5	4.7	7.3	11	15	29	38	16	56	6.9	5.8	3.2
14	3.6	4.8	7.8	14	12	25	31	14	49	6.4	5.0	3.2
15	3.6	5.1	22	13	15	20	25	12	18	6.2	4.5	3.2
16	3.7	8.1	25	12	22	18	23	11	45	6.0	4.1	3.5
17	3.8	6.6	14	15	19	29	23	10	190	5.7	4.0	3.3
18	4.4	5.9	12	13	14	22	54	9.9	10	5.6	4.0	3.2
19	8.1	5.4	11	11	18	20	27	9.7	19	5.4	3.7	3.1
20	4.8	18	9.0	10	24	17	23	9.9	11	12	3.7	3.3
21	4.3	13	8.0	9.8	25	20	21	11	9.6	7.9	3.7	3.9
22	4.2	8.2	11	9.6	23	19	20	9.7	8.9	5.7	3.5	5.6
23	6.1	6.9	17	11	19	16	18	11	8.7	5.2	3.5	6.7
24	14	6.3	22	16	18	15	17	14	9.5	4.7	3.8	4.3
25	6.2	5.9	13	13	15	14	17	11	8.2	4.3	11	3.7
26	16	5.6	14	10	23	23	92	9.0	7.8	4.4	5.2	3.6
27	19	5.8	12	9.0	14	17	62	7.5	9.0	4.3	4.0	22
28	61	5.6	18	8.6	11	14	80	15	11	24	3.9	6.4
29	11	5.2	15	8.3	---	14	38	28	23	8.3	3.5	4.7
30	8.4	5.1	12	8.0	---	13	32	16	20	5.8	3.4	4.5
31	7.1	---	14	10	---	17	---	22	---	5.4	3.5	---
TOTAL	244.8	199.0	473.8	802.3	824	625	1157	490.7	692.7	245.9	175.2	144.4
MEAN	7.90	6.63	15.3	25.9	29.4	20.2	38.6	15.8	23.1	7.93	5.65	4.81
MAX	61	18	90	245	240	53	127	29	190	24	25	22
MIN	3.4	4.7	7.3	8.0	11	10	15	7.5	7.8	4.3	3.4	3.1
CFSM	.64	.54	1.24	2.11	2.39	1.64	3.14	1.29	1.88	.65	.46	.39
IN.	.74	.60	1.43	2.43	2.49	1.89	3.50	1.48	2.09	.74	.53	.44

CAL YR 1981 TOTAL 4935.0 MEAN 13.5 MAX 221 MIN 2.4 CFSM 1.10 IN 14.92
WTR YR 1982 TOTAL 6074.8 MEAN 16.6 MAX 245 MIN 3.1 CFSM 1.35 IN 18.37

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ

LOCATION.--Lat 40°40'41", long 74°55'06", Hunterdon County, Hydrologic Unit 02030105, at site 800 ft (244 m) downstream of Rocky Run, 0.3 mi (0.5 km) above Van Syckel Road bridge, 1.5 mi (2.4 km) northwest of High Bridge, and 1.6 mi (2.6 km) southeast of Glen Gardner.

DRAINAGE AREA.--15.5 mi² (40.1 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
05...	1000	.30	168	7.3	10.0	12.0	3.8	170	33	58
FEB										
03...	1200	--	80	7.2	.0	15.8	4.1	140	>2400	19
MAR										
29...	1050	--	157	8.6	4.0	15.2	<1.1	<20	4	47
JUN										
01...	1000	--	144	7.6	15.0	9.8	<.9	490	920	49
JUL										
07...	1130	15	164	7.6	17.0	10.0	<1.2	50	540	52
AUG										
18...	0930	7.0	164	7.5	17.0	10.1	E6.1	130	140	58

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
05...	14	5.6	9.2	1.3	34	<.1	21	11	.1
FEB									
03...	4.8	1.8	5.9	1.5	9.0	--	9.4	9.5	.1
MAR									
29...	11	4.8	8.7	.9	23	--	18	9.5	.1
JUN									
01...	12	4.6	8.2	.9	28	<.5	19	10	.1
JUL									
07...	13	4.8	9.2	.9	31	--	18	10	.1
AUG									
18...	14	5.5	10	.1	38	--	20	10	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
05...	17	107	.010	.78	--	<.05	--	.25	13
FEB									
03...	5.1	64	.050	.50	--	.95	1.4	.37	8.3
MAR									
29...	15	99	.010	.80	<.050	E.30	--	.09	2.8
JUN									
01...	17	111	<.010	.80	<.050	.45	1.2	.06	2.7
JUL									
07...	17	115	.020	1.1	.080	.25	1.3	.21	3.0
AUG									
18...	17	118	.010	.80	.070	.32	1.1	.09	1.5

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT 05...	1000	1340	.1	6.0	20	2	0	<10	20	<1	<1
JUN 01...	1000	--	--	--	10	2	--	<10	10	1	--

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT 05...	40	1	<10	5	6	210	490	4	<10	70	280
JUN 01...	10	--	--	6	--	260	--	4	--	40	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 05...	<.1	<.01	2	<10	<1	<1	50	21	1	1	<1.0
JUN 01...	<.1	--	5	--	<1	--	10	--	1	--	--

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 05...	<.1	3.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
JUN 01...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN 01...	--	--	--	--	--	--	--	--	--	--	--

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ

LOCATION.--Lat 40°38'51", long 74°58'09", Hunterdon County, Hydrologic Unit 02030105, at bridge on Jutland Road, 0.2 mi (0.3 km) south of Van Syckel, 0.8 mi (1.3 km) north of Perryville, and 0.3 mi (0.5 km) upstream from Spruce Run Reservoir.

DRAINAGE AREA.--11.8 mi² (30.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1973-77. July 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 280 ft (85.3 m), from topographic map.

REMARKS.--Water-discharge records good except those above 200 ft³/s (5.66 m³/s), which are fair.

AVERAGE DISCHARGE.--5 years, 19.7 ft³/s (0.558 m³/s), 22.67 in/yr (576 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft³/s (112 m³/s) Jan. 24, 1979, gage height, 6.48 ft (1.975 m), from rating curve extended above 200 ft³/s (5.66 m³/s); minimum, 1.1 ft³/s (0.031 m³/s) Sept. 23, 1980, gage height, 0.66 ft (0.201 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 27	2300	559	15.8	3.44	1.049	Apr. 3	1845	1540	43.6	4.80	1.463
Jan. 4	1015	*1800	51.0	5.05	1.539	June 17	0200	358	10.1	2.99	0.911
Feb. 3	0415	772	21.9	3.82	1.164	Aug. 9	0815	1070	30.3	4.26	1.298

Minimum discharge, 2.7 ft³/s (0.076 m³/s) Oct. 1, gage-height, 0.78 ft (0.238 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	6.9	14	61	68	14	23	27	19	12	6.0	5.4
2	17	6.7	73	24	23	15	16	25	33	10	7.2	6.4
3	5.3	6.0	16	16	356	14	182	23	15	14	7.6	8.2
4	4.3	5.9	12	294	89	12	73	22	14	13	5.8	4.8
5	4.0	5.8	11	53	37	19	32	21	14	10	5.5	4.5
6	4.7	11	9.0	36	29	16	34	21	17	9.1	5.4	4.3
7	6.3	7.5	8.4	30	23	66	30	20	15	8.8	5.2	4.3
8	4.7	6.4	18	24	21	33	33	19	12	8.4	5.1	4.4
9	4.2	5.8	13	20	21	20	31	18	11	7.9	130	4.3
10	4.1	5.7	9.5	16	19	19	43	17	9.7	7.5	30	4.2
11	4.1	5.6	8.5	15	17	26	49	16	9.8	7.7	12	4.1
12	4.1	5.5	8.1	13	16	29	37	16	9.4	7.8	11	4.1
13	4.1	5.3	7.5	13	16	26	33	17	79	7.0	8.1	4.0
14	4.2	5.3	7.6	15	15	22	29	15	41	6.8	7.2	3.9
15	4.2	5.7	29	15	19	19	24	15	18	6.7	6.6	3.8
16	4.2	18	27	14	28	19	23	14	16	6.5	6.0	4.3
17	4.1	9.5	16	18	21	24	27	13	88	6.3	5.8	3.9
18	5.7	7.8	13	14	17	20	64	13	20	6.0	5.5	3.8
19	8.0	6.8	11	13	21	18	27	12	17	5.8	5.2	3.7
20	5.2	19	9.3	13	26	17	25	13	15	10	5.1	3.6
21	4.9	12	8.7	12	30	19	25	13	13	7.5	5.0	3.8
22	4.7	8.5	9.5	11	27	17	23	12	12	6.1	4.6	4.5
23	9.2	7.7	30	14	22	15	22	16	13	5.9	4.8	6.2
24	11	7.2	21	19	20	15	21	15	11	5.5	4.9	4.8
25	6.5	6.9	15	14	15	15	21	13	10	5.1	16	3.7
26	17	6.7	12	12	14	24	90	11	10	5.0	6.2	3.5
27	46	6.9	14	11	14	17	58	10	11	4.8	5.4	17
28	46	6.5	16	11	14	15	84	11	13	30	5.1	5.0
29	11	6.1	15	11	---	14	35	56	31	8.8	4.4	6.4
30	8.7	6.0	12	11	---	14	30	17	20	6.7	4.5	10
31	7.6	---	10	13	---	23	---	48	---	6.3	4.6	---
TOTAL	279.4	230.7	484.1	856	1038	636	1244	579	616.9	263.0	345.8	154.9
MEAN	9.01	7.69	15.6	27.6	37.1	20.5	41.5	18.7	20.6	8.48	11.2	5.16
MAX	46	19	73	294	356	66	182	56	88	30	130	17
MIN	4.0	5.3	7.5	11	14	12	16	10	9.4	4.8	4.4	3.5
CFSM	.76	.65	1.32	2.34	3.14	1.74	3.52	1.59	1.75	.72	.95	.44
IN.	.88	.73	1.53	2.70	3.27	2.00	3.92	1.83	1.94	.83	1.09	.49

CAL YR 1981 TOTAL 4564.0 MEAN 12.5 MAX 153 MIN 2.5 CFSM 1.06 IN 14.39
WTR YR 1982 TOTAL 6727.8 MEAN 18.4 MAX 356 MIN 3.5 CFSM 1.56 IN 21.21

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 05...	1200	4.1	204	7.7	11.0	10.6	3.8	110	540	81
FEB 03...	1050	578	69	7.4	.0	14.7	3.4	80	>2400	20
MAR 29...	0950	14	159	7.7	4.0	13.7	E1.6	<20	5	60
MAY 17...	0930	14	164	7.9	15.0	9.3	E.5	270	920	62
JUL 07...	1030	9.4	176	7.8	16.5	8.9	E1.3	790	920	67
AUG 18...	1000	5.8	187	7.6	17.0	9.2	E1.0	220	540	78

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	20	7.5	7.5	1.3	63	1.1	17	7.9	.1
FEB 03...	5.3	1.6	5.2	1.4	16	--	8.6	6.8	.1
MAR 29...	15	5.5	7.8	.9	39	--	20	13	<.1
MAY 17...	16	5.3	6.2	1.0	46	<.5	18	8.4	<.1
JUL 07...	17	5.9	7.1	1.0	52	--	16	9.5	.1
AUG 18...	20	6.8	7.5	<.1	61	--	17	8.7	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	16	115	.010	1.1	--	<.05	--	.06	1.3
FEB 03...	3.9	51	.040	.50	--	.88	1.4	.28	5.3
MAR 29...	13	104	.010	.80	<.050	E.20	--	<.06	1.7
MAY 17...	13	104	<.010	.90	.150	.25	1.2	.09	1.4
JUL 07...	16	112	.020	1.1	.080	.20	1.3	.12	1.5
AUG 18...	16	118	<.010	1.1	.060	.32	1.4	.06	1.8

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT											
05...	1200	1060	.1	2.9	10	2	1	<10	20	<1	<1
MAY											
17...	0930	--	--	--	20	1	--	<10	<10	<1	--

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT											
05...	10	<1	<10	5	1	230	340	1	<10	20	94
MAY											
17...	10	--	--	2	--	160	--	4	--	30	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
05...	<.1	<.01	2	<10	<1	<1	40	8	--	1	<1.0
MAY											
17...	<.1	--	<1	--	<1	--	10	--	2	--	--

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
05...	<.1	<1.0	<.1	1.9	<.1	<.1	<.1	<.1	<.1	<.1	<.1
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--

01396800 SPRUCE RUN AT CLINTON, NJ

LOCATION.--Lat 40°38'21", long 74°54'58", Hunterdon County, Hydrologic Unit 02030105, 1,800 ft (550 m) downstream from dam at Spruce Run Reservoir, 0.2 mi (0.3 km) north of Clinton, 0.3 mi (0.5 km) upstream from mouth, and 2.2 mi (3.5 km) southwest of High Bridge.

DRAINAGE AREA.--41.3 mi² (107.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1959 to current year.

GAGE.--Water-stage recorder. Concrete control since Mar. 15, 1964. Datum of gage is 193.5 ft (58.98 m) revised, National Geodetic Vertical Datum of 1929. May to Nov. 24, 1959, nonrecording gage; Nov. 25, 1959 to July 23, 1961, water-stage recorder at site 1,800 ft (550 m) upstream and at datum 1.41 ft (0.430 m) lower; July 24, 1961 to Mar. 14, 1964, water-stage recorder at site 1,500 ft (460 m) upstream at datum 1.41 ft (0.430 m) lower.

REMARKS.--Water-discharge records fair. Flow regulated by Spruce Run Reservoir (see Raritan River Basin, reservoirs in).

AVERAGE DISCHARGE.--23 years, 60.5 ft³/s (1.713 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 6,410 ft³/s (182 m³/s) Apr. 2, 1970, gage height, 5.17 ft (1.576 m); no flow Aug. 22 to Sept. 17, 1963, Sept. 19, 1963 to Mar. 14, 1964, Mar. 19, 1964, result of filling Spruce Run Reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,150 ft³/s (32.6 m³/s) Feb. 3, gage height, 3.05 ft (0.930 m); minimum, 0.33 ft³/s (0.009 m³/s) Sept. 11, 12, gage height, 1.07 ft (0.326 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	7.0	37	7.4	63	58	80	176	80	57	57	4.1
2	92	7.4	12	7.0	73	32	77	170	161	29	81	5.6
3	60	7.1	5.9	7.0	619	15	94	133	80	28	81	13
4	108	22	5.9	11	481	16	361	50	52	44	64	41
5	108	44	5.7	11	233	21	201	8.9	43	34	15	9.7
6	76	26	4.8	17	164	31	249	8.7	48	27	7.6	9.7
7	75	7.5	5.6	12	124	32	285	23	51	27	7.6	6.1
8	75	7.5	6.0	9.7	127	108	147	34	43	27	7.8	6.0
9	90	28	7.1	9.0	137	159	84	75	35	26	15	4.2
10	144	44	8.9	9.0	136	159	86	60	31	34	18	.43
11	145	44	9.1	9.2	116	101	89	33	47	86	18	.34
12	145	44	9.2	42	78	97	144	13	54	44	11	.35
13	141	49	9.6	85	78	110	166	30	70	56	14	1.7
14	136	65	27	84	78	110	170	41	213	113	31	11
15	136	80	26	84	78	143	168	38	104	75	62	14
16	135	44	7.6	84	78	137	125	38	68	57	27	9.9
17	116	20	6.8	84	78	67	78	36	407	95	13	7.1
18	98	20	6.5	84	111	21	112	34	203	118	21	5.3
19	97	20	6.5	84	102	37	136	39	164	163	25	5.4
20	86	14	6.5	38	79	72	169	46	174	150	16	8.3
21	67	6.8	6.4	8.3	80	72	163	28	68	78	25	13
22	67	6.6	6.4	35	93	77	118	29	8.3	64	17	9.3
23	31	6.6	6.9	55	116	52	74	37	14	51	6.5	9.7
24	6.9	6.8	6.9	8.4	79	41	48	46	16	37	12	9.2
25	7.0	39	6.5	7.4	57	41	48	45	10	129	14	10
26	7.3	49	6.4	12	58	39	80	40	11	159	8.5	15
27	7.9	36	6.7	27	58	37	164	34	11	109	8.5	11
28	8.0	17	6.4	55	58	30	267	30	11	45	13	9.5
29	7.0	28	6.5	55	---	29	202	150	59	16	13	9.2
30	7.0	50	6.5	55	---	13	182	97	67	75	7.9	10
31	7.0	---	6.5	55	---	11	---	122	---	51	6.5	---
TOTAL	2436.1	846.3	285.8	1151.4	3632	1968	4367	1744.6	2403.3	2104	723.9	269.12
MEAN	78.6	28.2	9.22	37.1	130	63.5	146	56.3	80.1	67.9	23.4	8.97
MAX	150	80	37	85	619	159	361	176	407	163	81	41
MIN	6.9	6.6	4.8	7.0	57	11	48	8.7	8.3	16	6.5	.34

CAL YR 1981 TOTAL 7990.70 MEAN 21.9 MAX 150 MIN 2.0
WTR YR 1982 TOTAL 21931.52 MEAN 60.1 MAX 619 MIN .34

01396800 SPRUCE RUN AT CLINTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-62, 1967 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to September 1969, January 1971 to September 1980.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to April 1961.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 05...	1300	E108	162	7.3	14.5	11.0	3.7	<20	2	58
FEB 09...	1050	136	164	7.2	2.0	12.2	E1.9	<20	23	57
MAR 29...	1150	29	156	7.5	5.0	13.1	E1.4	<20	<2	55
MAY 17...	1100	37	159	8.0	19.0	8.8	E2.2	20	17	56
JUL 07...	1230	27	165	6.9	13.0	7.7	2.6	20	20	61
AUG 18...	1040	4.5	164	7.5	19.0	10.0	E2.3	<20	17	57

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	14	5.6	7.9	1.3	37	1.0	19	8.3	.1
FEB 09...	14	5.4	8.5	1.5	37	--	19	8.6	.1
MAR 29...	13	5.4	7.4	1.1	35	--	18	9.5	.1
MAY 17...	14	5.2	7.3	1.2	39	<.5	19	9.5	.1
JUL 07...	15	5.8	9.3	1.0	42	--	17	9.1	.1
AUG 18...	14	5.3	7.9	<.1	42	--	17	9.1	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	2.9	100	.020	.11	--	E.35	--	.21	3.2
FEB 09...	4.0	78	.040	.30	.160	.40	.70	.06	2.6
MAR 29...	3.3	95	.020	.30	<.050	E.60	--	.06	3.9
MAY 17...	.6	96	<.010	.11	.150	.25	.36	.09	2.3
JUL 07...	3.7	117	.030	.30	.090	.28	.58	.09	1.9
AUG 18...	4.3	99	.010	<.10	.220	.72	--	.09	2.8

01396800 SPRUCE RUN AT CLINTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
05...	1300	20	2	<10	30	1	10	6
MAY								
17...	1100	20	1	<10	<10	<1	10	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
05...	460	1	390	<.1	2	<1	30	1
MAY								
17...	90	1	50	<.1	<1	<1	10	3

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ

LOCATION.--Lat 40°34'21", long 74°52'10", Hunterdon County, Hydrologic Unit 02030105, on right bank at downstream side of highway bridge at Stanton Station, 0.4 mi (0.6 km) upstream from Prescott Brook, and 1.4 mi (2.3 km) west of Stanton.

DRAINAGE AREA.--147 mi² (381 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to December 1906, July 1919 to current year. Monthly discharge only for some periods published in WSP 1302.

REVISED RECORDS.--WSP 561: Drainage area. WSP 1552: 1904, 1922-24(M), 1928-29(M), 1933-35(M).

GAGE.--Water-stage recorder. Datum of gage is 125.01 ft (38.103 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 17, 1925, nonrecording gage on downstream side of highway bridge at same site and datum.

REMARKS.--Water-discharge records good. Flow regulated by Spruce Run Reservoir since September 1963 (see Raritan River Basin, reservoirs in). Occasional regulation at low flows by ponds above station. Slight diurnal fluctuation caused by small powerplants above station. Water diverted by Hamden Pumping Station, 4.0 mi (6.4 km) upstream, into Round Valley Reservoir since February 1966 (see Raritan River Basin, diversions).

AVERAGE DISCHARGE.--66 years (water years 1904-06, 1920-82) 242 ft³/s (6.853 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s (510 m³/s) Aug. 19, 1955, gage height, 15.22 ft (4.639 m), from rating curve extended above 6,400 ft³/s (180 m³/s) on basis of computation of flow over Clinton Dam, 6.5 mi (10.5 km) upstream, at gage height 10.72 ft (3.269 m) contracted-opening measurement 1.7 mi (2.7 km) downstream, and slope-area measurement 0.4 mi (0.6 km) downstream, at gage height 15.22 ft (4.639 m), adjusted to present site; minimum, 9 ft³/s (0.25 m³/s) Nov. 7, 1931; minimum daily, 12 ft³/s (0.34 m³/s) Oct. 18, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,300 ft³/s (150 m³/s) Feb. 3, gage height, 10.02 ft (3.054 m) ice jam; minimum, 47 ft³/s (1.33 m³/s) Sept. 13, gage height, 2.25 ft (0.686 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	100	125	371	1740	180	265	481	263	260	125	64
2	224	94	700	488	1970	164	229	451	544	176	144	90
3	153	88	270	253	3660	137	469	405	283	169	149	145
4	185	88	190	1500	1790	126	1240	308	218	216	145	155
5	182	118	160	1230	778	142	578	241	190	165	87	75
6	170	118	140	552	542	173	551	226	210	145	77	70
7	137	110	116	436	419	321	599	225	252	134	76	65
8	132	87	123	353	375	519	436	227	209	131	72	66
9	130	91	130	297	378	358	365	253	171	125	562	62
10	196	115	127	288	353	321	370	237	149	116	490	54
11	198	112	115	242	311	294	451	201	147	171	196	52
12	197	111	111	293	260	341	511	160	176	154	151	50
13	193	108	106	325	253	349	497	179	308	132	122	49
14	183	125	117	325	235	331	459	183	858	191	116	56
15	182	125	242	338	239	313	407	171	367	166	146	69
16	183	123	343	412	273	306	359	161	260	125	116	64
17	173	116	224	568	291	296	299	155	1350	161	87	62
18	149	101	188	704	262	227	545	150	595	170	86	53
19	183	94	172	716	275	217	385	147	427	221	100	51
20	164	107	183	563	275	245	389	165	405	229	82	53
21	121	126	181	372	313	246	385	153	294	207	90	68
22	117	104	151	337	298	267	311	140	188	140	84	76
23	104	89	194	510	294	224	264	165	195	124	64	98
24	110	84	278	740	261	198	222	191	179	100	72	102
25	92	103	195	600	210	192	212	196	159	157	114	72
26	160	122	159	584	196	216	352	157	151	213	117	69
27	300	115	160	611	189	218	821	140	147	187	82	197
28	580	91	185	686	187	175	1150	130	158	237	79	149
29	230	90	176	640	---	167	645	531	236	175	74	87
30	140	110	157	586	---	152	529	330	580	150	66	75
31	110	---	137	543	---	156	---	361	---	127	64	---
TOTAL	5568	3165	5855	16463	16627	7571	14295	7220	9669	5174	4035	2398
MEAN	180	106	189	531	594	244	477	233	322	167	130	79.9
MAX	580	126	700	1500	3660	519	1240	531	1350	260	562	197
MIN	92	84	106	242	187	126	212	130	147	100	64	49

CAL YR 1981 TOTAL 46545 MEAN 128 MAX 2380 MIN 45
WTR YR 1982 TOTAL 98040 MEAN 269 MAX 3660 MIN 49

01397100 PRESCOTT BROOK AT ROUND VALLEY, NJ

LOCATION.--Lat 40°36'28", long 74°50'54", Hunterdon County, Hydrologic Unit 02030105, at bridge on unnamed road at Round Valley, 3.3 mi (5.3 km) west of Whitehouse Station, and 4.1 mi (6.6 km) upstream from mouth.

DRAINAGE AREA.--4.61 mi² (11.94 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, 1977 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 14...	1420	13	165	7.0	7.0	3.8	<.1	<20	5	60
FEB 22...	1300	.70	178	7.3	10.0	12.6	<.9	<20	<2	68
APR 05...	1350	1.2	174	--	11.0	12.6	<.1	<20	7	72
MAY 17...	1200	.88	182	7.2	12.5	10.4	E2.8	20	110	70

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 14...	15	5.4	5.5	1.3	42	.1	16	8.2	.1
FEB 22...	18	5.7	6.3	1.0	53	--	19	7.1	<.1
APR 05...	18	6.5	6.7	.8	56	--	21	6.9	.1
MAY 17...	18	6.1	5.8	.8	59	<.5	20	9.7	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 14...	3.1	94	.010	.25	--	<.05	--	.18	2.9
FEB 22...	7.5	111	<.010	.10	<.050	.35	.45	<.06	.7
APR 05...	8.6	100	<.010	.30	.170	--	--	.06	.8
MAY 17...	8.1	110	<.010	.20	.150	E.40	--	<.06	.9

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT 14...	1420	10	1	<10	<10	1	20	9
MAY 17...	1200	10	3	<10	20	<1	10	3

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 14...	150	1	870	.1	5	<1	80	1
MAY 17...	310	2	150	<.1	2	<1	<10	4

01397380 BUSHKILL BROOK AT ROCKEFELLOWS MILLS, NJ

LOCATION.--Lat 40°31'15", long 74°49'40", Hunterdon County, Hydrologic Unit 02030501, at bridge on unnamed road in Rockefellows Mills, 200 ft (61 m) upstream from mouth, and 1.5 mi (2.4 km) west of Three Bridges.

DRAINAGE AREA.--4.31 mi^2 (11.16 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 15...	1100	7.0	800	7.8	13.0	7.5	E.1	20	12	380
FEB 02...	1100	24	689	7.7	2.5	12.0	<1.4	170	49	210
MAR 18...	1300	8.5	660	8.0	12.5	11.2	E2.3	<20	<2	230
MAY 19...	1200	3.6	780	7.9	18.0	6.8	E2.8	230	220	310
JUL 08...	1130	4.1	782	7.7	21.5	8.1	2.8	330	130	310
AUG 09...	1200	56	410	7.5	21.3	5.9	>7.5	3500	>2400	200
SEP 16...	1130	3.6	585	7.6	19.5	6.3	E4.9	3500	>2400	350

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 15...	129	15	27	1.4	100	<.1	280	18	.2
FEB 02...	67	11	44	2.5	60	--	120	75	.1
MAR 18...	73	12	36	2.3	82	--	170	50	.2
MAY 19...	99	15	29	2.5	107	<.5	180	36	.2
JUL 08...	96	16	39	2.8	116	--	180	43	.2
AUG 09...	61	12	27	9.7	62	--	100	40	.2
SEP 16...	110	18	59	3.6	122	--	200	70	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 15...	14	628	.060	1.1	--	E.05	--	.70	1.3
FEB 02...	11	406	E.600	2.1	--	.78	2.9	.61	3.8
MAR 18...	13	418	.030	2.2	.300	E1.10	--	E1.30	3.7
MAY 19...	14	558	.180	2.5	.530	1.00	3.5	2.10	2.9
JUL 08...	16	539	.380	2.4	E.350	.76	3.2	1.99	3.0
AUG 09...	10	367	1.04	5.5	E3.50	12.0	18	7.65	14
SEP 16...	14	598	.180	1.9	.240	1.10	3.0	2.90	5.8

01397380 BUSHKILL BROOK AT ROCKEFELLOWS MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 15...	1100	863	1.2	8.8	20	5	0	<10	320	<1	1
MAY 19...	1200	--	--	--	<10	4	--	<10	240	1	--
SEP 16...	1130	2600	.6	16	10	5	<1	<10	280	1	1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 15...	10	1	<10	2	110	110	250	2	10	60	850
MAY 19...	10	--	--	13	--	160	--	8	--	70	--
SEP 16...	10	4	10	33	140	210	4200	7	50	90	800

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 15...	<.1	4.0	3	<10	1	<1	60	96	<1	87	<1.0
MAY 19...	.3	--	2	--	<1	--	150	--	5	--	--
SEP 16...	.1	<.01	3	<10	1	<1	40	97	2	30	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<.1	.8	<1.0	<.1	<.1	<.1
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
SEP 16...	<.1	31	<.1	2.0	<.1	<.1	1.7	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 15...	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
SEP 16...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01397400 SOUTH BRANCH RARITAN RIVER AT THREE BRIDGES, NJ

LOCATION.--Lat 40°31'01", long 74°48'12", Hunterdon County, Hydrologic Unit 02030105, at bridge on Main Street in Three Bridges, 0.4 mi (0.7 km) northeast of Voorhees Corner, 1.3 mi (2.1 km) downstream of Bushkill Brook, and 2.2 mi (3.6 km) southeast of Darts Mills.

DRAINAGE AREA.--181 mi^2 (469 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 14...	1200	186	225	8.3	10.0	13.0	E.3	50	22	82
FEB 10...	1145	--	241	7.2	1.0	12.7	E2.4	<20	2	73
MAR 23...	1015	240	237	8.4	6.5	12.9	E1.8	110	2	78
MAY 27...	1045	169	249	7.7	19.5	9.8	E1.5	--	--	86
JUL 08...	1000	149	265	8.1	24.0	11.9	E1.8	490	920	92
AUG 09...	1300	1500	202	7.9	21.5	8.2	5.1	2800	>2400	90
SEP 15...	1030	90	305	8.4	22.0	9.0	E2.8	3500	920	120

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 14...	21	7.2	9.1	1.7	51	<.1	30	11	.1
FEB 10...	18	6.8	15	1.6	44	--	23	22	.1
MAR 23...	19	7.3	14	1.5	49	--	26	17	<.1
MAY 27...	22	7.6	9.7	1.5	57	<.5	26	15	.1
JUL 08...	23	8.3	13	1.4	65	--	28	18	.1
AUG 09...	21	9.1	10	1.5	69	--	14	15	.1
SEP 15...	31	11	13	1.8	98	<.5	35	18	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 14...	3.2	142	.030	.46	--	E.05	--	.37	--
FEB 10...	11	111	.060	1.3	.310	.65	1.9	.31	2.0
MAR 23...	7.0	131	.020	1.0	.200	E.62	--	.06	2.3
MAY 27...	10	160	.050	1.5	.060	E.50	--	.40	3.0
JUL 08...	8.4	165	.020	1.1	E.080	.69	1.8	.45	2.3
AUG 09...	8.8	133	.020	1.2	E.090	1.80	3.0	.37	9.3
SEP 15...	6.5	194	.020	.90	.070	.37	1.3	.34	2.9

01397400 SOUTH BRANCH RARITAN RIVER AT THREE BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 14...	1200	--	--	--	10	2	--	<10	10	<1	--
MAY 27...	1045	--	--	--	<10	2	--	<10	20	1	--
SEP 15...	1030	2000	.4	6.7	10	2	<1	<10	60	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 14...	20	--	--	7	--	140	--	3	--	20	--
MAY 27...	10	--	--	18	--	450	--	4	--	60	--
SEP 15...	10	2	<10	6	5	120	2200	4	10	50	370

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	<.1	--	4	--	<1	--	60	--	8	--	--
MAY 27...	<.1	--	6	--	<1	--	10	--	1	--	--
SEP 15...	.1	<.01	4	<10	<1	<1	50	23	<1	33	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	--	--	--	--	--	--	--	--	--	--	--
MAY 27...	--	--	--	--	--	--	--	--	--	--	--
SEP 15...	<.1	180	1.2	9.3	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	--	--	--	--	--	--	--	--	--	--	--
MAY 27...	--	--	--	--	--	--	--	--	--	--	--
SEP 15...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01398000 NESHANIC RIVER AT REAVILLE, NJ

LOCATION.--Lat 40°28'18", long 74°49'42", Hunterdon County, Hydrologic Unit 02030105, on left bank 50 ft (15 m) downstream from highway bridge, 0.6 ft (1.0 m) southwest of Reaville, 1.5 mi (2.4 km) downstream from Third Neshanic River, and 2.2 mi (3.5 km) upstream from Back Brook.

DRAINAGE AREA.--25.7 mi^2 (66.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1930 to current year.

REVISED RECORD.--WSP 1552: 1933, 1934(M), 1936(M), 1938, 1940(M), 1942(M), 1945-46, 1951, 1952(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 26, 1935. Datum of gage is 109.46 ft (33.363 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--52 years, 35.8 ft^3/s (1.014 m^3/s), 18.90 in/yr (480 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,900 ft^3/s (450 m^3/s) Aug. 28, 1971 (gage height, 13.84 ft or 4.218 m, from high-water mark in gage house) from rating curve extended above 1,700 ft^3/s (48 m^3/s) on basis of slope-area measurement 0.7 mi (1.1 km) downstream (adjusted to present site) at gage height 11.90 ft (3.627 m); no flow many days 1965, 1966, and part of July 17, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,600 ft^3/s (45.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1400	*3490	98.0	9.24	2.816
Feb. 3	0215	1620	45.9	7.11	2.167

Minimum discharge, 0.29 ft^3/s (0.008 m^3/s) Oct. 1, gage height, 2.14 ft (0.652 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	3.8	7.5	168	260	20	41	46	41	8.9	3.4	2.3
2	4.9	3.4	120	81	110	21	21	37	55	6.7	2.8	2.8
3	1.6	2.9	42	50	937	21	279	30	28	30	2.5	8.7
4	.85	2.6	28	1250	258	16	249	26	23	36	2.0	1.9
5	.73	2.4	25	194	88	22	81	22	21	15	1.8	1.2
6	.83	9.2	18	93	63	20	74	19	21	11	1.8	1.2
7	1.6	6.2	15	72	44	165	63	17	18	8.6	1.6	1.7
8	1.2	4.3	18	50	36	111	66	15	15	7.5	1.5	2.2
9	.89	3.5	17	40	35	60	68	14	12	6.2	3.5	1.6
10	.84	3.3	13	28	31	47	119	13	9.8	5.2	3.0	.88
11	.84	3.0	12	35	25	47	126	11	9.1	5.3	1.9	.87
12	.81	2.7	9.4	26	21	50	90	10	8.3	11	4.7	.80
13	.72	2.4	7.7	23	20	48	72	10	150	5.5	2.2	.80
14	.69	2.4	7.1	30	17	44	57	9.0	152	4.2	1.6	.62
15	.78	2.7	128	23	22	35	43	8.0	56	3.7	1.7	.72
16	.85	10	236	18	35	33	36	7.2	40	3.2	2.9	.86
17	.77	8.0	79	14	30	46	35	6.6	96	3.3	2.9	.79
18	1.0	6.4	56	13	22	35	131	6.2	42	3.7	3.2	.73
19	2.7	5.2	40	13	48	31	49	5.9	32	3.3	.88	.64
20	1.3	7.6	29	14	56	28	40	20	25	3.2	.90	1.5
21	.90	7.4	24	12	73	27	34	21	19	3.5	.85	1.7
22	.86	5.7	24	9.7	65	25	28	11	15	2.0	.79	2.8
23	2.0	5.0	88	14	48	21	24	14	16	1.7	.88	6.9
24	6.2	4.5	75	37	43	19	21	15	11	1.8	.96	2.0
25	2.3	4.1	52	22	32	18	19	94	9.5	1.5	5.8	1.3
26	5.4	3.6	37	16	25	22	94	28	8.4	1.4	1.8	1.1
27	10	3.7	39	13	23	17	113	18	7.9	1.5	1.1	9.9
28	24	3.4	46	13	22	14	272	16	8.3	72	1.0	2.9
29	8.3	2.9	41	13	---	14	86	120	19	11	.88	1.6
30	5.8	2.6	30	12	---	13	60	43	18	5.4	.92	1.4
31	4.5	---	24	15	---	23	---	85	---	4.4	.91	---
TOTAL	94.57	134.9	1387.7	2411.7	2489	1113	2491	797.9	986.3	287.7	62.67	64.41
MEAN	3.05	4.50	44.8	77.8	88.9	35.9	83.0	25.7	32.9	9.28	2.02	2.15
MAX	24	10	236	1250	937	165	279	120	152	72	5.8	9.9
MIN	.41	2.4	7.1	9.7	17	13	19	5.9	7.9	1.4	.79	.62
CFSM	.12	.18	1.74	3.03	3.46	1.40	3.23	1.00	1.28	.36	.08	.08
IN.	.14	.20	2.01	3.49	3.60	1.61	3.61	1.15	1.43	.42	.09	.09

CAL YR 1981 TOTAL 7766.82 MEAN 21.3 MAX 586 MIN .25 CFSM .83 IN 11.24
WTR YR 1982 TOTAL 12320.85 MEAN 33.8 MAX 1250 MIN .41 CFSM 1.32 IN 17.83

01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1962, 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 15...	0930	.77	350	8.0	5.5	10.2	E.7	20	130	150
FEB 02...	1000	E110	210	7.9	.0	12.7	2.8	1300	2400	57
MAR 18...	1345	33	258	9.3	9.0	16.4	<2.1	<20	17	87
MAY 19...	1345	6.0	420	9.1	22.0	13.6	E2.9	490	220	125
JUL 08...	1300	7.6	464	9.2	25.5	19.6	E2.3	490	280	142
AUG 09...	1045	7.6	300	8.5	22.0	9.6	E1.6	1300	>2400	134
SEP 16...	1330	.77	328	8.4	22.0	7.9	E3.5	170	49	138

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 15...	37	14	15	3.3	100	--	56	11	.1
FEB 02...	14	5.4	13	2.5	26	--	23	20	.1
MAR 18...	21	8.4	15	1.8	29	--	36	23	<.1
MAY 19...	32	11	26	1.9	60	<.5	31	62	.1
JUL 08...	37	12	32	1.6	60	--	40	68	<.1
AUG 09...	34	12	22	1.3	70	--	50	34	.1
SEP 16...	32	14	16	2.0	96	--	44	15	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 15...	--	223	.010	<.05	--	E.05	--	.21	3.4
FEB 02...	8.2	126	E.040	3.4	--	.85	4.3	.37	3.4
MAR 18...	12	150	.020	3.5	.100	E1.60	--	.15	1.8
MAY 19...	4.9	292	.050	1.3	<.050	.35	1.7	.12	2.0
JUL 08...	4.8	295	.030	1.6	E.150	.70	2.3	.15	2.5
AUG 09...	3.8	249	.010	.70	E.180	.60	1.3	.15	3.6
SEP 16...	1.3	210	<.010	<.10	.050	.51	--	.25	3.6

01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
MAY											
19...	1345	--	--	--	<10	1	--	<10	<10	1	--
SEP											
16...	1330	2800	.4	9.2	--	--	4	--	--	--	<1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
MAY											
19...	10	--	--	5	--	220	--	5	--	30	--
SEP											
16...	--	4	<10	--	10	--	2700	--	10	--	350

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
MAY											
19...	<.1	--	5	--	<1	--	140	--	1	--	--
SEP											
16...	--	<.01	--	<10	--	<1	--	17	--	68	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
MAY											
19...	--	--	--	--	--	--	--	--	--	--	--
SEP											
16...	<.1	2.0	<.1	<.1	<.1	<.1	.3	<.1	<.1	<.1	<.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
MAY											
19...	--	--	--	--	--	--	--	--	--	--	--
SEP											
16...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01398045 BACK BROOK TRIBUTARY NEAR RINGOES, NJ

LOCATION.--Lat 40°25'41", long 74°49'52", Hunterdon County, Hydrologic Unit 02030105, on right upstream wingwall of bridge on Wertsville Road, 2.1 mi (3.4 km) east of Ringoes, 1.3 mi (2.1 km) upstream from Back Brook, and 2.3 mi (3.7 km) southwest of Wertsville.

DRAINAGE AREA.--1.98 mi² (5.13 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 156 ft (47.5 m), from topographic map.

REMARKS.--Water-discharge records fair except those below 1.0 ft³/s (0.03 m³/s), which are poor.

AVERAGE DISCHARGE.--5 years, 5.19 ft³/s (0.1470 m³/s), 35.60 in/yr (904 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1290 ft³/s (36.5 m³/s) Aug. 3, 1979, gage height, 5.05 ft (1.539 m), from rating curve extended above 200 ft³/s (5.66 m³/s) on basis of contracted-opening measurement at gage height 4.64 ft (1.414 m); minimum daily, 0.01 ft³/s (0.001 m³/s) Feb. 19, 1979, Sept. 14, 22, 1981, and Oct. 1, 3-5, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 476 ft³/s (13.5 m³/s) Jan. 4, 1982, gage height, 2.89 ft (0.881 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum, 0.01 ft³/s (0.0003 m³/s) part of Oct. 1-6, gage height, 0.46 ft (0.140 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.05	1.9	17	33	.99	3.0	2.1	.59	1.1	.26	.04
2	.04	.04	16	6.0	6.1	1.1	1.5	1.6	1.3	.72	.21	.05
3	.01	.04	2.0	3.0	78	1.1	28	1.2	.54	14	.20	.09
4	.01	.05	.98	96	17	.97	14	1.1	.49	5.9	.19	.04
5	.01	.05	.89	7.3	5.3	2.6	4.1	.94	.52	1.9	.17	.03
6	.02	.17	.55	2.7	3.5	2.1	4.2	.83	.55	1.2	.17	.02
7	.03	.10	.45	1.8	3.1	26	3.7	.73	.53	.93	.17	.02
8	.02	.08	1.1	.98	2.0	10	4.0	.67	.47	.80	.15	.02
9	.02	.08	.86	.72	1.8	4.3	4.3	.64	.42	.72	.18	.02
10	.02	.08	.51	.63	1.6	2.9	11	.55	.39	.63	.16	.02
11	.02	.08	.40	1.1	1.3	4.3	13	.50	.38	.58	.13	.02
12	.03	.08	.36	.66	1.1	4.1	7.3	.50	.36	.62	.21	.02
13	.03	.07	.29	.59	.97	3.5	4.8	.50	11	.55	.13	.02
14	.03	.09	.39	.57	.89	2.7	3.1	.48	7.5	.50	.10	.02
15	.03	.11	30	.43	1.1	2.1	2.2	.44	2.0	.48	.10	.02
16	.03	.22	17	.39	2.4	1.9	1.7	.44	1.3	.39	.09	.02
17	.03	.18	5.4	.42	1.8	3.5	2.0	.42	11	.36	.08	.02
18	.04	.17	3.4	.49	1.3	2.3	13	.39	2.4	.34	.08	.02
19	.09	.15	2.0	.40	5.4	1.9	3.1	.38	1.6	.33	.07	.02
20	.06	.36	1.1	.31	5.0	1.7	2.2	.40	1.2	.41	.07	.03
21	.05	.30	.78	.25	5.5	1.6	1.8	.46	.94	.37	.07	.04
22	.06	.19	.81	.22	4.8	1.4	1.4	.43	.82	.32	.06	.05
23	.10	.16	14	4.2	3.1	1.2	1.2	.50	.79	.33	.06	.08
24	.13	.17	6.3	11	2.5	1.1	.99	.52	.71	.31	.06	.04
25	.08	.16	3.5	2.1	1.8	.99	.87	.69	.64	.28	.11	.04
26	.22	.15	2.2	.56	1.3	1.2	14	.46	.62	.28	.06	.05
27	3.5	.15	3.0	.39	1.1	.99	12	.40	.57	.28	.06	.23
28	1.1	.15	2.9	.34	1.2	.85	26	.43	.57	1.8	.05	.05
29	.08	.13	2.2	.27	---	.77	5.2	3.6	9.7	.38	.04	.04
30	.06	.12	1.3	.27	---	.76	3.0	.92	3.2	.28	.04	.04
31	.06	---	.97	.87	---	2.6	---	.70	---	.28	.03	---
TOTAL	6.02	3.93	123.54	161.96	193.96	93.52	196.66	23.92	63.10	37.37	3.56	1.22
MEAN	.19	.13	3.99	5.22	6.93	3.02	6.56	.77	2.10	1.21	.11	.041
MAX	3.5	.36	30	96	78	26	28	3.6	11	14	.26	.23
MIN	.01	.04	.29	.22	.89	.76	.87	.38	.36	.28	.03	.02
CFSM	.10	.07	2.02	2.64	3.50	1.53	3.31	.39	1.06	.61	.06	.02
IN.	.11	.07	2.32	3.04	3.64	1.76	3.69	.45	1.18	.70	.07	.02

CAL YR 1981 TOTAL 794.81 MEAN 2.18 MAX 73 MIN .01 CFSM 1.10 IN 14.93
WTR YR 1982 TOTAL 908.76 MEAN 2.49 MAX 96 MIN .01 CFSM 1.26 IN 17.07

01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ

LOCATION.--Lat 40°32'48", long 74°41'48", Somerset County, Hydrologic Unit 02030105, at bridge on Studdiford Drive in South Branch, 0.8 mi (1.3 km) upstream from mouth, and 2.7 mi (4.3 km) southeast of Readington.

DRAINAGE AREA.--265 mi² (686 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 08...	1330	274	258	8.2	11.5	13.0	<1.3	20	9	88
FEB 10...	1300	597	263	7.9	1.0	13.2	E1.5	330	<2	69
MAR 23...	1230	439	241	8.8	8.5	13.2	E1.4	<20	2	75
MAY 27...	1230	393	264	7.6	20.5	9.0	E1.8	220	240	87
JUL 29...	1045	506	212	7.4	20.0	7.3	--	5400	>2400	78
AUG 24...	1050	280	280	8.6	21.0	8.6	E1.5	220	350	110
SEP 15...	1245	295	340	9.1	23.0	10.4	E2.6	70	540	130

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 08...	23	7.4	11	1.9	59	<.1	32	16	.1
FEB 10...	17	6.4	16	1.7	39	--	25	29	<.1
MAR 23...	18	7.4	12	1.6	44	--	26	17	<.1
MAY 27...	22	7.8	11	1.8	54	<.5	28	17	.1
JUL 29...	20	6.9	11	2.6	47	--	23	17	.1
AUG 24...	27	10	14	1.5	79	--	28	18	.1
SEP 15...	33	12	21	2.0	103	--	40	24	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 08...	3.0	141	.020	.58	--	<.05	--	.37	2.9
FEB 10...	9.8	128	.070	2.0	.280	.49	2.5	.25	2.2
MAR 23...	7.3	130	.020	1.7	.100	E.54	--	E.06	2.7
MAY 27...	10	164	.080	2.6	<.050	E.35	--	.40	2.5
JUL 29...	8.0	147	.040	1.3	.130	.78	2.1	.52	4.5
AUG 24...	4.3	165	<.010	.60	.050	.30	.90	.18	2.3
SEP 15...	4.4	208	<.010	.50	.070	.40	.90	.21	3.3

01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 08...	1330	1270	.6	5.0	10	3	0	<10	30	1	<1
MAY 27...	1230	--	--	--	10	1	--	<10	20	1	--
SEP 15...	1245	1300	.4	4.4	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 08...	20	<1	<10	6	2	110	290	1	<10	10	290
MAY 27...	10	--	--	15	--	500	--	6	--	60	--
SEP 15...	--	<1	<10	--	2	--	690	--	10	--	100

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 08...	<.1	<.01	2	<10	<1	<1	40	16	--	2	<1.0
MAY 27...	<.1	--	<1	--	<1	--	10	--	<1	--	--
SEP 15...	--	<.01	--	<10	--	<1	--	8	--	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 08...	<.1	<1.0	<.1	.3	.5	<.1	<.1	<.1	<.1	<.1	<.1
MAY 27...	--	--	--	--	--	--	--	--	--	--	--
SEP 15...	<.1	<1.0	1.3	.4	2.7	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 08...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
MAY 27...	--	--	--	--	--	--	--	--	--	--	--
SEP 15...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01398107 HOLLAND BROOK AT READINGTON, NJ

LOCATION.--Lat 40°33'30", long 74°43'50", Somerset County, Hydrologic Unit 02030105, on right bank 15 ft (4.6 m) downstream from bridge on Old York Road, 0.9 mi (1.4 km) southeast of Readington, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--9.00 mi^2 (23.31 km^2) revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1978 to current year.

REVISED RECORDS.--WDR NJ-80-1: 1978, 1979(P).

GAGE.--Water-stage recorder above a concrete parking-block control. Datum of gage is 77.65 ft (23.668 m) National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, July 4 to Aug. 11, which are poor.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft^3/s (30.9 m^3/s) May 11, 1981, gage height, 7.22 ft (2.201 m); minimum, 0.22 ft^3/s (0.006 m^3/s) Aug. 28, 1980, gage height, 1.61 ft (0.491 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1145	*994	28.2	6.86	2.091
Feb. 3	1325	554	15.7	5.01	1.527
Apr. 3	1945	531	15.0	4.90	1.494

Minimum discharge, 0.56 ft^3/s (0.016 m^3/s) Sept. 13, gage height, 1.66 ft (0.506 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	3.9	4.7	61	78	8.1	12	23	16	4.6	1.9	1.3
2	5.0	3.6	66	38	19	8.1	9.8	18	46	4.0	1.8	1.7
3	1.6	3.2	21	23	306	7.3	105	14	21	5.3	1.6	3.2
4	1.3	3.0	14	390	93	6.2	113	12	14	5.5	1.6	1.1
5	1.3	2.9	11	94	41	7.6	42	10	12	3.8	1.5	.98
6	1.5	5.5	9.2	40	27	6.6	33	8.7	11	3.5	1.5	.86
7	2.0	4.2	8.2	27	18	43	26	8.1	9.2	3.3	1.4	.83
8	1.4	3.6	10	20	14	38	24	7.4	7.6	3.0	1.3	.81
9	1.2	3.4	9.4	17	14	25	25	6.8	6.5	2.9	2.1	.81
10	1.1	3.2	8.3	12	12	19	33	6.0	5.5	2.6	2.1	.80
11	1.1	3.1	7.4	10	9.5	16	41	5.4	5.1	2.6	1.5	.77
12	1.0	3.0	6.6	8.4	8.3	16	35	5.2	4.5	3.0	1.8	.67
13	.90	2.9	5.7	8.0	8.0	16	30	5.2	67	2.4	1.3	.66
14	.94	2.9	5.4	8.7	7.0	16	24	4.6	79	2.0	.93	.71
15	.96	3.0	59	7.9	8.5	14	18	4.1	32	2.0	1.1	.72
16	.95	7.2	110	7.1	12	13	15	3.8	21	2.0	1.1	.80
17	.95	4.7	39	6.0	10	16	14	3.5	34	1.8	1.0	.69
18	1.2	4.3	25	5.5	8.5	14	37	3.2	18	1.8	1.0	.69
19	2.2	3.8	18	5.4	13	13	22	3.0	15	1.7	1.0	.66
20	1.2	5.2	14	5.4	16	12	18	4.9	11	1.8	1.0	.87
21	1.1	4.6	12	5.0	24	12	15	5.2	9.0	1.8	.95	.88
22	1.1	4.3	11	4.4	24	11	12	3.7	7.6	1.6	.87	1.3
23	1.5	4.0	25	5.8	19	9.5	11	5.2	8.1	1.6	.92	3.7
24	3.2	3.7	22	9.0	16	8.7	9.5	4.8	6.0	1.6	.92	1.1
25	1.9	3.5	19	6.3	13	8.1	8.5	13	5.2	1.4	2.7	.94
26	3.9	3.2	15	5.3	11	9.0	23	6.5	4.7	1.4	1.1	.91
27	8.4	3.3	15	4.7	9.7	7.6	44	5.1	4.3	1.3	1.0	6.4
28	15	3.0	15	4.6	8.9	6.6	114	4.8	4.5	18	.98	1.6
29	6.6	2.8	14	4.3	---	6.3	46	37	9.4	3.3	.90	1.2
30	5.2	2.6	13	4.1	---	6.2	30	18	7.2	2.6	.90	1.1
31	4.4	---	12	5.1	---	8.8	---	21	---	2.3	.88	---
TOTAL	81.30	111.6	624.9	853.0	848.4	408.7	989.8	281.2	501.4	96.5	40.65	38.76
MEAN	2.62	3.72	20.2	27.5	30.3	13.2	33.0	9.07	16.7	3.11	1.31	1.29
MAX	15	7.2	110	390	306	43	114	37	79	18	2.7	6.4
MIN	.90	2.6	4.7	4.1	7.0	6.2	8.5	3.0	4.3	1.3	.87	.66
CFSM	.28	.39	2.12	2.89	3.19	1.39	3.47	.95	1.76	.33	.14	.14
IN.	.32	.44	2.44	3.34	3.32	1.60	3.87	1.10	1.96	.38	.16	.15

CAL YR 1981 TOTAL 3170.64 MEAN 8.69 MAX 190 MIN .59 CFSM .91 IN 12.40
WTR YR 1982 TOTAL 4876.21 MEAN 13.4 MAX 390 MIN .66 CFSM 1.41 IN 19.07

01398260 NORTH BRANCH RARITAN RIVER NEAR CHESTER, NJ

LOCATION.--Lat 40°46'16", long 74°37'34", Morris County, Hydrologic Unit 02030105, at bridge on State Route 24, 0.8 mi (1.3 km) upstream from Burnett Brook, and 3.8 mi (6.1 km) east of Chester.

DRAINAGE AREA.--7.57 mi^2 (19.61 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1967, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 13...	1200	--	280	7.1	7.5	9.4	E2.2	60	49
JAN 26...	1200	11	322	7.3	.0	14.5	E2.3	80	540
MAR 16...	1000	12	236	7.7	5.0	12.9	E1.5	<20	2
MAY 17...	1030	6.5	225	7.4	15.0	9.1	E4.6	220	280
JUL 06...	1200	3.0	214	7.4	16.0	8.6	2.4	110	170
AUG 05...	1030	1.2	248	7.2	18.0	7.4	6.0	40	350
SEP 22...	1030	--	209	7.6	14.0	8.1	3.7	270	>2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 13...	80	19	7.8	23	2.8	50	19	25	.1
JAN 26...	53	13	5.1	29	1.6	34	16	50	<.1
MAR 16...	54	13	5.2	26	1.4	17	17	34	<.1
MAY 17...	61	15	5.8	14	1.6	37	16	24	<.1
JUL 06...	65	16	6.0	14	1.7	39	16	24	.1
AUG 05...	70	17	6.6	15	1.8	46	15	24	.2
SEP 22...	68	17	6.2	17	2.3	43	20	23	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	18	169	.110	2.7	--	E2.10	--	2.90	3.7
JAN 26...	15	175	.010	1.3	--	1.60	2.9	1.10	2.8
MAR 16...	14	134	.020	1.0	.680	E2.40	--	.70	1.9
MAY 17...	15	122	.130	.90	1.20	E1.60	--	1.30	2.1
JUL 06...	17	165	.380	1.7	.870	1.50	3.2	1.60	3.7
AUG 05...	17	145	.270	2.4	.290	.85	3.2	1.78	3.4
SEP 22...	16	139	.150	2.1	.550	.96	3.1	1.70	3.0

01398260 NORTH BRANCH RARITAN RIVER NEAR CHESTER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
13...	1200	--	--	--	10	2	--	<10	170	<1	--
SEP											
22...	1030	670	3.1	12	10	1	<1	<10	60	<1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
13...	10	--	--	10	--	190	--	<1	--	20	--
SEP											
22...	<10	4	<10	9	2	250	1100	4	80	30	200

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
13...	<.1	--	5	--	<1	--	40	--	2	--	--
SEP											
22...	.2	<.01	2	<10	<1	<1	20	35	<1	34	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.1	10	1.5	1.8	15	<.1	.3	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ

LOCATION.--Lat 40°42'30", long 74°38'11", Somerset County, Hydrologic Unit 02030105, on left bank 75 ft (23 m) upstream from Ravine Lake Dam, 1.6 mi (2.6 km) north of Far Hills, and 2.3 mi (3.7 km) upstream from Peapack Brook. Water-quality samples collected at bridge 900 ft (274 m) downstream from gage.

DRAINAGE AREA.--26.2 mi^2 (67.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1975, October 1977 to current year. Operated as crest-stage gage water years 1976-77. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23, 1924-25(M), 1935(M). WSP 1902: 1954.

GAGE.--Water-stage recorder above masonry dam. Datum of gage is 224.49 ft (68.425 m) National Geodetic Vertical Datum of 1929 (New Jersey Geological Survey bench mark). Prior to June 18, 1925, nonrecording gage in stilling box at left end of dam at same datum.

REMARKS.--Water-discharge records fair. Records given herein include diversion by small turbine at dam and returned to river 1,000 ft (300 m) downstream from Ravine Lake Dam. Flow regulated occasionally by operation of waste gate in dam.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

AVERAGE DISCHARGE.--59 years (water years 1922-75, 1978-82) 47.5 ft^3/s (1.345 m^3/s), 24.62 in/yr (625 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,390 ft^3/s (181 m^3/s) Aug. 28, 1971, gage height, 7.28 ft (2.219 m), from rating curve extended above 2,000 ft^3/s (57 m^3/s) on basis of computation of peak flow over dam; no flow at times when Ravine Lake was filling.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stage of 7.6 ft (2.3 m), from floodmark, occurred July 23, 1919, discharge about 7,000 ft^3/s (200 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)	Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Jan. 4	1200	*1640	46.4	4.36	1.329	Apr. 28	2345	753	21.3	3.47	1.058
Feb. 3	1430	753	21.3	3.49	1.064						

Minimum discharge, 6.6 ft^3/s (0.187 m^3/s) Oct. 1, gage height, 1.83 ft (0.558 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	17	12	91	151	34	57	103	37	35	16	9.6
2	32	17	134	61	49	34	46	92	56	30	17	19
3	20	15	36	41	437	34	131	84	36	29	26	38
4	11	14	25	564	160	30	153	77	33	33	26	17
5	9.7	14	23	169	77	39	65	73	30	27	23	11
6	9.5	22	22	92	63	38	70	68	39	25	16	9.7
7	13	21	23	74	54	96	60	65	50	21	13	9.1
8	11	14	20	62	49	79	58	63	36	22	13	9.0
9	9.7	12	23	54	50	47	61	59	30	20	56	8.8
10	9.4	11	11	43	46	42	63	57	26	18	42	8.6
11	9.2	11	8.5	36	41	45	86	53	26	19	24	8.2
12	9.6	10	8.5	33	39	52	85	50	24	19	24	7.8
13	9.8	9.7	8.1	33	40	50	73	48	56	19	18	8.1
14	9.7	9.7	8.4	34	38	48	58	46	84	19	15	7.9
15	11	9.2	34	37	39	42	53	46	36	19	14	8.3
16	9.8	11	57	36	50	41	52	43	38	19	13	9.3
17	9.1	11	29	39	47	50	50	40	197	20	12	9.8
18	9.7	9.5	24	38	40	46	99	39	53	19	11	8.9
19	30	8.4	19	37	43	42	63	37	45	18	11	7.9
20	24	13	15	36	48	41	54	34	42	30	10	8.1
21	17	19	15	34	50	43	52	32	39	36	10	10
22	11	12	18	32	46	44	54	32	37	25	9.3	11
23	13	9.8	24	40	42	41	49	39	38	30	9.1	28
24	45	9.1	35	111	41	40	47	42	33	14	10	16
25	21	8.6	25	75	36	39	46	37	30	13	25	9.9
26	28	9.6	21	57	32	50	45	32	29	16	20	7.8
27	36	9.8	22	40	34	44	190	29	29	25	12	43
28	79	9.9	28	37	35	37	195	29	29	49	10	12
29	31	9.9	25	34	---	37	330	94	69	33	9.1	9.9
30	22	9.5	24	33	---	39	123	44	73	20	8.7	9.0
31	19	---	20	34	---	47	---	44	---	17	9.0	---
TOTAL	586.1	366.7	797.5	2137	1877	1391	2568	1631	1380	739	532.2	380.7
MEAN	18.9	12.2	25.7	68.9	67.0	44.9	85.6	52.6	46.0	23.8	17.2	12.7
MAX	79	22	134	564	437	96	330	103	197	49	56	43
MIN	6.9	8.4	8.1	32	32	30	45	29	24	13	8.7	7.8
CFSM	.72	.47	.98	2.63	2.56	1.71	3.27	2.01	1.76	.91	.66	.49
IN.	.83	.52	1.13	3.03	2.66	1.97	3.65	2.32	1.96	1.05	.76	.54

CAL YR 1981 TOTAL 9788.3 MEAN 26.8 MAX 602 MIN 5.7 CFSM 1.02 IN 13.90
WTR YR 1982 TOTAL 14386.2 MEAN 39.4 MAX 564 MIN 6.9 CFSM 1.50 IN 20.43

01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 13...	1320	E9.8	155	7.5	13.0	14.4	4.2	<20	7	62
JAN 26...	1015	57	264	7.2	.0	15.6	E1.9	20	17	56
MAR 16...	1130	40	225	7.7	4.0	14.0	<1.2	<20	2	53
MAY 17...	1200	E40	168	8.7	19.9	9.8	E4.0	<20	<2	56

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 13...	15	5.9	11	1.4	40	--	15	15	<.1
JAN 26...	14	5.1	20	1.3	30	--	17	38	<.1
MAR 16...	13	5.0	24	.9	28	--	17	34	<.1
MAY 17...	14	5.2	9.1	1.0	34	<.5	17	18	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	15	118	.030	.80	--	E.60	--	.55	2.9
JAN 26...	15	152	.010	1.2	--	.30	1.5	.18	1.1
MAR 16...	13	141	.020	.90	.080	E1.21	--	.25	1.4
MAY 17...	14	107	.020	.60	.150	.50	1.1	.18	1.5

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 17...	1200	20	1	<10	10	<1	10	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY 17...	210	5	40	<.1	3	<1	10	<1

01399120 NORTH BRANCH RARITAN RIVER AT BURNT MILLS, NJ

LOCATION.--Lat 40°38'09", long 74°40'56", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road in Burnt Mills, 0.1 mi (0.2 km) upstream from Lamington River, and 4.0 mi (6.4 km) southwest of Far Hills.

DRAINAGE AREA.--63.8 mi² (165.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 07...	1240	34	250	8.2	13.0	13.2	5.8	230	350	86
FEB 04...	1330	600	175	8.1	1.5	13.8	2.9	230	920	39
MAR 16...	1300	72	250	8.3	5.0	14.9	E1.3	80	4	68
MAY 17...	1330	52	217	8.3	18.0	11.0	E3.2	270	540	69
JUL 06...	1345	35	207	8.5	20.5	11.3	<1.2	140	40	72
AUG 18...	1230	24	228	8.6	20.0	10.6	E4.3	330	540	83
SEP 21...	1330	24	254	8.2	16.5	12.1	<.8	270	1600	92

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 07...	22	7.5	14	2.0	59	.5	22	21	.1
FEB 04...	9.9	3.4	14	1.2	22	--	14	25	.1
MAR 16...	17	6.3	20	1.2	35	--	20	32	<.1
MAY 17...	17	6.5	10	1.2	45	--	19	21	<.1
JUL 06...	18	6.5	11	1.0	49	--	16	16	<.1
AUG 18...	21	7.3	13	.6	60	--	19	17	.2
SEP 21...	23	8.4	15	1.8	62	<.5	21	24	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	10	147	.010	1.2	--	E.85	--	.25	3.2
FEB 04...	7.6	110	.050	.70	--	.46	1.2	.21	4.0
MAR 16...	11	144	.020	1.0	.300	E2.30	--	.15	2.4
MAY 17...	12	121	.060	1.0	.200	.35	1.3	.21	1.5
JUL 06...	15	134	.020	1.0	<.050	.45	1.4	.31	2.1
AUG 18...	12	133	.020	.90	<.050	.46	1.4	.37	2.8
SEP 21...	13	146	.010	1.6	<.050	.45	2.0	.58	2.0

01399120 NORTH BRANCH RARITAN RIVER AT BURNT MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
07...	1240	3350	<.1	6.3	30	2	0	<10	110	<1	<1
SEP											
21...	1330	--	--	--	10	1	--	<10	60	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
07...	<10	<1	<10	10	2	230	490	1	<10	20	240
SEP											
21...	10	--	--	6	--	140	--	3	--	30	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
07...	<.1	<.01	1	<10	<1	<1	30	12	--	2	<1.0
SEP											
21...	<.1	--	3	--	<1	--	10	--	2	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
07...	<.1	45	<.1	1.1	1.3	<.1	<.1	<.1	<.1	<.1	<.1
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
07...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--

01399190 LAMINGTON (BLACK) RIVER AT SUCCASUNNA, NJ

LOCATION.--Lat 40°51'03", long 74°38'02", Morris County, Hydrologic Unit 02030105, on right bank, 10 ft (3 m) upstream from bridge on Righter Road, 0.7 mi (1.1 km) south of Succasunna, and 0.4 mi (0.6 km) upstream from Succasunna Brook.

DRAINAGE AREA.--7.37 mi^2 (19.09 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder above prefabricated concrete bumper-block control. Datum of gage is 692.92 ft (211.200 m), revised, National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--6 years, 11.0 ft^3/s (0.312 m^3/s), 20.27 in/yr (515 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft^3/s (4.98 m^3/s) Jan. 24, 1979, gage height, 5.20 ft (1.585 m); minimum, 1.2 ft^3/s (0.034 m^3/s) Sept. 11, 12, 1980, gage height, 2.27 ft (0.692 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft^3/s (1.13 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1845	*44	1.25	3.92	1.195	Apr. 28	0330	40	1.13	3.85	1.173
Feb. 3	1345	*44	1.25	3.92	1.195						

Minimum discharge, 2.2 ft^3/s (0.062 m^3/s) Oct. 1, gage height, 2.40 ft (0.732 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	5.6	3.7	11	15	8.0	8.5	20	14	17	5.1	5.2
2	4.9	5.1	13	12	12	8.1	7.6	19	16	13	4.8	6.7
3	4.2	4.4	9.7	9.6	36	8.0	13	16	14	12	4.6	8.7
4	3.9	4.4	7.3	31	36	7.9	22	15	12	12	4.1	7.3
5	3.4	4.0	6.0	36	27	8.7	17	14	12	11	3.9	6.5
6	3.1	5.1	4.8	27	20	8.7	16	14	14	9.4	3.8	5.8
7	3.3	4.8	4.2	20	17	13	15	14	17	8.1	3.7	5.2
8	3.2	4.6	4.6	17	14	16	14	15	14	7.8	3.8	4.6
9	3.0	4.2	4.8	14	14	13	13	15	12	7.7	23	4.6
10	3.0	3.7	4.4	12	13	12	13	13	11	7.7	31	4.4
11	3.3	3.6	4.0	10	12	11	14	13	9.7	7.8	23	4.5
12	3.3	3.5	3.9	9.3	11	12	15	13	9.3	8.0	16	4.6
13	3.1	3.2	4.3	9.6	10	12	14	13	14	7.7	11	4.4
14	2.7	3.1	5.1	9.5	9.8	12	13	13	20	7.5	9.2	3.9
15	2.6	3.4	8.0	9.2	9.6	11	11	13	17	7.0	8.2	3.9
16	2.6	4.6	10	8.9	10	9.5	10	13	14	6.5	7.2	3.9
17	2.5	4.1	8.4	8.5	11	11	11	12	29	6.4	6.5	3.7
18	3.3	3.6	7.2	7.8	10	11	16	11	22	6.4	6.2	3.7
19	4.7	3.3	6.4	7.5	11	10	14	11	18	6.0	5.9	4.0
20	3.9	4.8	5.8	7.6	11	9.9	12	11	15	8.0	5.7	3.9
21	3.4	4.9	5.5	7.4	11	11	11	12	12	7.4	5.7	3.8
22	3.2	4.4	5.3	7.1	11	10	10	12	11	5.9	5.7	4.5
23	4.1	3.8	6.2	8.4	10	8.9	9.4	13	11	5.2	5.3	7.2
24	6.1	3.2	6.7	9.1	10	8.5	9.3	13	11	4.7	5.3	6.0
25	5.8	3.0	6.4	7.9	9.4	8.2	9.2	12	10	4.6	8.7	5.3
26	6.8	2.8	5.9	7.3	8.9	9.8	14	12	10	4.3	7.8	5.0
27	6.5	3.0	5.9	6.9	8.5	9.6	22	11	10	4.0	6.6	10
28	11	3.0	6.2	6.7	8.2	9.0	36	10	9.5	8.0	6.1	8.3
29	9.1	2.9	5.9	6.4	---	7.7	29	21	19	7.9	5.6	6.6
30	7.1	2.8	5.7	6.2	---	7.0	24	19	23	6.1	5.0	5.7
31	6.0	---	5.5	6.6	---	7.8	---	17	---	5.4	4.5	---
TOTAL	135.4	116.9	190.8	356.9	386.4	310.3	443.0	430	430.5	240.5	253.0	161.9
MEAN	4.37	3.90	6.15	11.5	13.8	10.0	14.8	13.9	14.4	7.76	8.16	5.40
MAX	11	5.6	13	36	36	16	36	21	29	17	31	10
MIN	2.3	2.8	3.7	6.2	8.2	7.0	7.6	10	9.3	4.0	3.7	3.7
CFSM	.59	.53	.83	1.56	1.87	1.36	2.01	1.89	1.95	1.05	1.11	.73
IN.	.68	.59	.96	1.80	1.95	1.57	2.24	2.17	2.17	1.21	1.28	.82

CAL YR 1981 TOTAL 2355.4 MEAN 6.45 MAX 56 MIN 1.9 CFSM .88 IN 11.89
WTR YR 1982 TOTAL 3455.6 MEAN 9.47 MAX 36 MIN 2.3 CFSM 1.29 IN 17.44

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ

LOCATION.--Lat 40°50'07", long 74°38'40", Morris County, Hydrologic Unit 02030105, on left bank 15 ft (4.5 m) upstream from bridge on Ironia Road, 1.0 mi (1.6 km) below Succasunna Brook, 1.3 mi (2.1 km) northwest of Ironia, and 4.4 mi (7.1 km) northeast of Chester.

DRAINAGE AREA.--10.9 mi² (28.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder above a concrete block control. Datum of gage is 687.27 ft (209.480 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for winter months and for period of no gage-height record, Feb. 7 to Mar. 11, which are poor. Water for municipal supply pumped from wells upstream of gage by Morris County Municipal Utilities Authority.

AVERAGE DISCHARGE.--7 years, 18.7 ft³/s (0.530 m³/s), 23.30 in/yr (592 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 348 ft³/s (9.86 m³/s) Jan. 25, 1979, gage height, 5.27 ft (1.606 m); minimum daily discharge, 1.5 ft³/s (0.042 m³/s) Oct. 1, 1980.

CORRECTION.--The date of a peak discharge was in error and is corrected to May 12, 1981, from May 5, 1981, as published in WDR NJ-81-1.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft³/s (2.27 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	2315	100	2.83	4.62	1.408
Feb. 3	1930	*105	2.97	4.67	1.423

Minimum discharge, 2.0 ft³/s (0.057 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	8.8	3.9	18	23	17	15	33	21	36	11	6.5
2	6.2	7.9	30	32	28	18	14	27	25	23	10	9.3
3	7.6	6.6	27	33	77	17	25	23	22	19	11	16
4	6.0	6.0	14	60	82	18	37	20	19	19	8.6	13
5	5.1	5.5	9.7	86	60	19	30	19	16	17	7.6	10
6	4.0	7.8	7.0	61	44	20	28	18	19	15	7.0	8.6
7	4.0	8.7	5.2	44	36	53	27	17	29	13	6.6	7.4
8	3.8	8.0	5.5	40	32	58	23	17	23	11	6.7	6.7
9	3.1	7.3	6.8	32	31	39	23	18	18	10	37	6.4
10	3.0	6.1	5.4	27	29	37	23	17	15	9.9	68	6.2
11	3.1	5.4	4.6	23	25	36	24	15	14	10	50	6.0
12	3.3	5.3	4.6	21	22	43	25	16	12	12	39	6.1
13	3.3	4.9	4.3	20	22	48	24	16	17	12	28	5.9
14	2.9	4.8	5.1	21	21	34	21	16	41	10	20	5.0
15	2.6	5.0	11	20	21	17	18	15	32	9.7	18	4.8
16	2.5	7.4	16	20	22	14	16	15	22	9.2	15	4.9
17	2.4	7.3	18	19	25	17	16	15	51	8.9	13	4.9
18	2.7	6.1	15	17	23	17	24	13	44	9.0	11	4.6
19	5.6	5.2	13	17	23	16	22	13	31	8.8	10	4.8
20	5.8	7.4	11	17	25	15	18	13	23	11	9.7	4.8
21	4.3	12	9.8	16	25	16	16	13	19	18	9.4	5.1
22	3.6	9.5	9.1	16	25	17	15	13	17	13	9.1	6.0
23	3.7	7.6	8.3	18	23	14	13	15	16	9.0	8.6	9.1
24	8.9	5.8	13	20	22	14	13	18	15	7.6	8.0	11
25	9.6	5.0	11	19	21	14	12	15	15	6.7	12	8.1
26	11	4.3	10	17	20	16	18	14	14	6.7	17	7.0
27	12	4.1	9.8	16	19	16	45	13	14	6.5	12	14
28	18	3.9	11	15	18	15	64	13	14	13	9.4	21
29	19	3.7	10	4.5	---	14	50	31	23	22	8.3	15
30	13	3.5	9.7	14	---	12	39	35	52	17	7.2	10
31	9.9	---	9.1	15	---	14	---	26	---	13	6.6	---
TOTAL	192.2	190.9	327.9	798.5	844	715	738	562	693	406.0	494.8	248.2
MEAN	6.20	6.36	10.6	25.8	30.1	23.1	24.6	18.1	23.1	13.1	16.0	8.27
MAX	19	12	30	86	82	58	64	35	52	36	68	21
MIN	2.2	3.5	3.9	4.5	18	12	12	13	12	6.5	6.6	4.6
CFSM	.57	.58	.97	2.37	2.76	2.12	2.26	1.66	2.12	1.20	1.47	.76
IN.	.66	.65	1.12	2.72	2.88	2.44	2.52	1.92	2.36	1.39	1.69	.85

CAL YR 1981 TOTAL 3837.3 MEAN 10.5 MAX 89 MIN 1.4 CFSM .96 IN 13.09
WTR YR 1982 TOTAL 6210.5 MEAN 17.0 MAX 86 MIN 2.2 CFSM 1.56 IN 21.19

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 08...	1030	3.7	410	7.1	10.0	2.6	E2.4	80	49	--
FEB 04...	1030	83	292	7.2	.0	11.3	2.9	170	240	54
MAR 17...	1015	17	368	7.5	3.5	8.6	2.4	<20	79	84
MAY 20...	1030	12	424	7.4	18.5	4.7	E2.3	20	350	102
JUL 06...	1015	15	289	7.4	16.5	5.6	<.7	330	350	109
AUG 05...	1200	7.3	368	7.3	20.5	3.8	E1.5	70	240	109
SEP 21...	1000	4.9	383	6.9	15.0	4.3	<.9	1300	170	110

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 08...	--	--	--	4.5	98	<.1	28	46	.1
FEB 04...	13	5.3	30	1.4	43	--	14	40	.1
MAR 17...	20	8.2	41	1.9	66	--	20	47	<.1
MAY 20...	25	9.5	29	2.1	97	--	23	45	<.1
JUL 06...	27	10	32	1.6	92	--	20	39	<.1
AUG 05...	27	10	34	2.2	88	--	22	41	.1
SEP 21...	26	11	35	2.9	89	<.5	22	43	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 08...	--	248	.190	2.1	--	E1.30	--	3.20	5.7
FEB 04...	6.0	158	.220	.66	--	.70	1.4	.25	4.5
MAR 17...	9.4	196	.130	1.6	.800	E2.90	--	.92	3.5
MAY 20...	9.3	231	.170	2.2	.290	.80	3.0	1.19	4.5
JUL 06...	9.4	223	.070	1.5	.060	.71	2.2	.77	3.4
AUG 05...	11	212	.040	2.2	.120	.61	2.8	1.53	3.4
SEP 21...	10	216	.150	2.5	.070	1.30	3.8	1.70	3.1

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
08...	1030	7130	.2	7.5	10	3	0	<10	100	1	<1
SEP											
21...	1000	--	--	--	20	1	--	<10	120	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
08...	10	1	<10	12	3	320	350	1	<10	70	130
SEP											
21...	10	--	--	9	-	830	--	6	--	230	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
08...	<.1	<.01	5	<10	<1	<1	60	18	2	2	<1.0
SEP											
21...	<.1	--	3	--	<1	--	20	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
08...	<.1	2.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
08...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°43'39", long 74°43'50", Morris County, Hydrologic Unit 02030105, on right bank 1.1 mi (1.8 km) upstream from bridge on State Highway 512, 1.2 mi (1.9 km) northwest of Pottersville, and 5.5 mi (8.8 km) upstream from Cold Brook. Water-quality sample collected at bridge 1.1 mi (1.8 km) downstream from gage at high flows.

DRAINAGE AREA.--32.8 mi^2 (85.0 km^2).

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October and November 1921, published in WSP 1302. Prior to October 1952, published as "Black River near Pottersville".

REVISED RECORDS.--WSP 741: 1932. WSP 781: Drainage area. WSP 1552: 1922, 1924-29(M), 1931(M), 1933-34(M), 1938(P), 1939(M), 1940, 1941(M), 1942-46(P), 1947(M), 1948-49(P), 1951-52(P), 1953(M). WDR-NJ-80-1: Correction 1979(P).

GAGE.--Water-stage recorder. Concrete control since July 1, 1937. Datum of gage is 284.14 ft (86.606 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to July 1, 1922, nonrecording gage on downstream side of highway bridge at Pottersville, 1.1 mi (1.8 km) downstream at different datum.

REMARKS.--Water-discharge records good except those for period of ice effect, Jan. 10 to Feb. 4, which are fair. Flow regulated occasionally by pond above station.

AVERAGE DISCHARGE.--61 years, 55.7 ft^3/s (1.577 m^3/s), 23.06 in/yr (586 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft^3/s (76.5 m^3/s) Aug. 28, 1971, gage height, 5.39 ft (1.643 m), from rating curve extended above 380 ft^3/s (10.8 m^3/s) on basis of slope-area measurement at gage height 4.71 ft (1.436 m); minimum, 1.3 ft^3/s (0.037 m^3/s) Oct. 4, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft^3/s (10.8 m^3/s) and maximum (*):

		Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Jan. 4	1015	564	16.0	3.38	1.030
Feb. 3	1030	*809	22.9	3.74	1.140
Jun. 17	0100	429	12.1	3.11	0.948

Minimum discharge, 10 ft^3/s (0.28 m^3/s) Oct. 1, 2, gage height, 1.49 ft (0.454 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	34	21	77	100	41	49	112	70	67	33	23
2	24	31	98	72	86	41	46	105	96	75	32	25
3	19	27	51	52	250	41	91	88	73	79	31	32
4	16	24	49	260	240	39	120	76	66	72	29	23
5	16	21	51	203	185	42	92	68	60	60	28	22
6	16	26	47	172	142	45	103	64	59	52	27	21
7	18	24	39	153	114	81	88	64	66	47	25	21
8	16	22	37	122	89	81	78	68	56	43	24	22
9	14	22	34	103	71	64	80	68	53	40	49	21
10	13	20	30	87	65	65	78	60	52	36	47	19
11	12	18	28	76	71	71	87	55	49	34	37	18
12	12	17	22	66	75	73	89	53	45	34	50	17
13	12	16	24	62	53	71	87	52	85	31	58	16
14	12	16	25	63	54	70	81	50	108	29	54	16
15	12	16	37	62	50	65	72	47	71	28	47	15
16	12	17	51	60	62	61	66	45	81	27	43	15
17	12	18	42	58	64	66	61	44	231	26	39	14
18	12	18	37	54	60	60	90	42	125	25	35	13
19	22	18	47	51	63	57	80	41	110	24	32	13
20	18	25	39	51	65	55	68	41	98	28	31	13
21	17	26	41	51	67	56	62	40	83	28	32	14
22	16	24	36	49	65	55	56	39	69	26	31	17
23	18	24	44	54	61	52	54	45	63	25	29	31
24	31	22	47	62	58	50	53	47	55	25	29	21
25	23	21	40	56	55	47	52	46	50	24	43	18
26	32	18	40	50	57	51	80	43	46	25	22	17
27	34	17	36	48	48	49	130	42	42	26	22	40
28	68	17	38	47	43	47	195	41	42	48	21	29
29	42	16	36	44	---	45	160	97	85	39	20	24
30	37	15	36	43	---	42	130	63	97	33	20	24
31	36	---	38	45	---	46	---	71	---	33	20	---
TOTAL	652	630	1241	2453	2413	1729	2578	1817	2286	1189	1040	614
MEAN	21.0	21.0	40.0	79.1	86.2	55.8	85.9	58.6	76.2	38.4	33.5	20.5
MAX	68	34	98	260	250	81	195	112	231	79	58	40
MIN	10	15	21	43	43	39	46	39	42	24	20	13
CFSM	.64	.64	1.22	2.41	2.63	1.70	2.62	1.79	2.32	1.17	1.02	.63
IN.	.74	.71	1.41	2.78	2.74	1.96	2.92	2.06	2.59	1.35	1.18	.70

CAL YR 1981 TOTAL 13569 MEAN 37.2 MAX 369 MIN 10 CFSM 1.13 IN 15.39
WTR YR 1982 TOTAL 18642 MEAN 51.1 MAX 260 MIN 10 CFSM 1.56 IN 21.14

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 08...	1145	16	235	7.4	9.5	12.8	<1.2	20	13	68
JAN 26...	1330	50	258	7.0	.0	16.4	<1.3	20	7	56
MAR 17...	1200	64	209	7.6	3.5	13.7	<1.2	230	15	51
MAY 20...	1200	41	244	8.0	18.5	8.1	E1.4	50	350	64
JUL 07...	1015	48	204	7.7	16.5	10.2	E1.5	80	>2400	61
AUG 05...	1315	28	219	8.3	20.5	8.7	E1.9	20	130	63
SEP 21...	1200	14	249	7.7	14.0	9.0	E1.0	20	920	75

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 08...	16	6.7	19	2.1	53	--	18	25	.1
JAN 26...	13	5.6	22	1.5	39	--	17	33	<.1
MAR 17...	12	5.0	20	1.1	35	--	16	26	<.1
MAY 20...	15	6.4	18	1.2	53	<.5	15	26	<.1
JUL 07...	15	5.6	15	.3	49	--	9.0	21	<.1
AUG 05...	15	6.2	15	.7	53	--	7.0	21	.1
SEP 21...	17	7.9	23	1.6	64	--	14	28	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 08...	13	147	.010	1.1	--	E.10	--	.40	4.0
JAN 26...	13	147	.010	1.4	--	.20	1.6	.21	2.0
MAR 17...	8.7	114	.010	1.0	.170	E1.80	--	.15	2.7
MAY 20...	12	145	.020	1.2	<.050	.35	1.6	.40	3.2
JUL 07...	14	142	.010	.50	.070	.51	1.0	.34	5.3
AUG 05...	16	127	<.010	.50	.090	.46	.96	.37	6.5
SEP 21...	14	143	<.010	.50	<.050	.31	.81	.18	2.2

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY 20...	1200	--	--	--	<10	1	--	<10	20	1	--
SEP 21...	1200	350	<.1	5.2	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY 20...	10	--	--	9	--	650	--	6	--	50	--
SEP 21...	--	2	10	--	2	--	2000	--	<10	--	450

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 20...	<.1	--	8	--	<1	--	20	--	3	--	--
SEP 21...	--	<.01	--	<10	--	<1	--	22	--	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 20...	--	--	--	--	--	--	--	--	--	--	--
SEP 21...	<.1	<1.0	<.1	.2	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 20...	--	--	--	--	--	--	--	--	--	--	--
SEP 21...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01399510 UPPER COLD BROOK NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°43'16", long 74°45'09", Hunterdon County, Hydrologic Unit 02030105, on right bank along a private dirt road, 400 ft (122 m) downstream from the Pottersville Reservoir, and 1.5 mi (2.4 km) west of Pottersville.

DRAINAGE AREA.--2.18 mi² (5.65 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder above a rock outcrop control. Datum of gage is 451.57 ft (137.639 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Flow regulated by Pottersville Reservoir, 400 ft (122 m) above station, until August 1982 when dam was demolished.

AVERAGE DISCHARGE.--10 years, 3.74 ft³/s (0.106 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 197 ft³/s (5.58 m³/s) July 20, 1975, gage height, 2.85 ft (0.869 m); maximum gage height, 3.17 ft (0.966 m) Jan. 24, 1979, minimum daily discharge, 0.03 ft³/s (0.001 m³/s) Aug. 28, 29, Sept. 3, 8, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73 ft³/s (2.07 m³/s) Feb. 3, gage height, 2.05 ft (0.625 m); minimum discharge, 0.11 ft³/s (0.003 m³/s) Sept. 10, gage height, 0.40 ft (0.122 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	1.3	1.0	7.0	8.0	2.6	3.4	6.0	2.9	2.6	1.4	.97
2	2.2	1.2	7.0	6.0	5.2	2.5	2.6	5.3	8.7	2.2	1.2	1.2
3	.91	.98	3.0	6.0	49	2.4	15	4.8	2.8	2.3	1.1	3.0
4	.80	.93	2.5	15	18	2.3	10	4.5	2.6	2.9	1.1	.99
5	.79	.93	2.2	8.0	8.5	3.2	5.0	4.2	2.6	2.3	1.4	.85
6	.82	1.4	2.0	6.6	6.8	2.8	5.7	4.0	3.0	2.1	1.4	.80
7	.95	1.4	1.8	5.5	5.0	13	4.7	3.8	3.4	2.1	.95	.77
8	.77	1.1	1.7	4.3	4.5	5.3	4.7	3.7	2.5	2.0	.99	.72
9	.75	.99	3.0	3.9	4.6	3.7	4.5	3.5	2.4	2.0	4.6	.75
10	.70	.92	2.0	3.3	4.1	3.7	5.6	3.1	2.2	1.9	1.6	.68
11	.69	.93	1.8	3.1	3.6	4.2	7.7	2.9	2.1	1.9	.71	.59
12	.67	.93	1.6	2.9	3.4	4.6	6.5	2.7	2.0	2.0	.73	.58
13	.67	.87	1.5	3.0	3.3	4.3	5.8	2.8	13	1.9	2.4	.61
14	.67	.84	1.4	3.2	3.1	3.8	4.9	2.6	6.3	1.8	1.1	.62
15	.69	.91	1.3	3.0	3.6	3.4	4.4	2.4	3.2	1.8	.97	.63
16	.74	1.0	10	2.9	5.0	3.5	4.2	2.3	11	1.8	.89	.75
17	.72	.93	5.0	2.7	3.9	4.8	4.4	2.2	13	1.7	.59	.61
18	.71	1.1	4.0	2.8	3.3	3.6	9.5	2.2	4.5	1.7	.52	.56
19	1.7	1.0	3.5	2.8	4.0	3.1	4.7	2.1	3.9	1.7	.52	.53
20	.95	1.8	3.3	2.8	4.4	2.9	4.4	2.1	3.4	2.0	.52	.69
21	.87	1.6	3.1	2.7	4.4	3.2	4.4	2.2	3.1	2.0	.52	.77
22	.84	1.4	2.9	2.7	3.9	2.9	4.0	2.1	2.8	1.9	.52	1.3
23	.89	1.3	2.8	3.7	3.5	2.6	3.7	2.7	3.0	2.4	.59	3.5
24	2.2	1.3	4.5	5.2	3.3	2.5	3.6	2.7	2.6	1.8	.72	.95
25	1.3	.90	3.6	4.6	2.8	2.5	3.5	2.4	2.4	1.6	2.3	.81
26	1.9	.85	3.4	4.3	2.6	3.4	16	2.2	2.3	1.6	1.1	.75
27	1.9	.80	3.2	4.1	2.6	2.6	16	2.1	2.3	1.7	1.8	5.6
28	5.0	.75	4.0	3.9	2.6	2.3	18	2.1	2.4	2.0	1.9	1.3
29	1.8	.70	3.7	3.8	---	2.4	7.2	11	4.5	1.8	.77	.96
30	1.5	.65	3.4	3.7	---	2.4	6.6	2.9	5.2	1.6	.79	.86
31	1.4	---	3.1	3.9	---	3.5	---	4.3	---	1.5	.76	---
TOTAL	37.14	31.71	97.3	137.4	177.0	110.0	200.7	103.9	126.1	60.6	36.46	33.70
MEAN	1.20	1.06	3.14	4.43	6.32	3.55	6.69	3.35	4.20	1.95	1.18	1.12
MAX	5.0	1.8	10	15	49	13	18	11	13	2.9	4.6	5.6
MIN	.64	.65	1.0	2.7	2.6	2.3	2.6	2.1	2.0	1.5	.52	.53

CAL YR 1981 TOTAL 854.91 MEAN 2.34 MAX 51 MIN .08
WTR YR 1982 TOTAL 1152.01 MEAN 3.16 MAX 49 MIN .52

01399525 LAMINGTON (BLACK) RIVER TRIBUTARY NO. 2 NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°41'40", long 74°43'05", Somerset County, Hydrologic Unit 02030105, on right upstream wingwall of bridge on Black River Road, 1.3 mi (2.1 km) south of Pottersville, and 0.3 mi (0.5 km) upstream from mouth.

DRAINAGE AREA.--1.22 mi^2 (3.60 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 172.74 ft (52.651 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for October, November, December, and Jan. 17-30, which are poor.

AVERAGE DISCHARGE.--5 years, 2.37 ft^3/s (0.067 m^3/s), 26.38 in/yr (670 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 773 ft^3/s (21.9 m^3/s) Sept. 6, 1979, gage height, 4.98 ft (1.518 m); no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Jan. 4	0945	*430	12.2	4.00	1.219

No flow many days during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.43	1.1	11	7.3	.99	1.3	1.8	.65	.43	.09	.12
2	.68	.44	12	2.6	3.0	1.1	.94	1.6	2.3	.29	.07	.31
3	.12	.42	3.5	1.8	50	.95	21	1.4	.63	.53	.07	.62
4	.10	.38	1.6	74	10	.80	7.1	1.3	.55	.47	.05	.13
5	.09	.38	1.4	4.6	3.9	1.3	2.5	1.2	.61	.25	.09	.08
6	.13	.68	1.3	2.7	2.6	1.0	2.6	1.1	.66	.20	.13	.06
7	.35	1.6	1.2	2.3	2.1	9.1	2.3	.97	.70	.18	.09	.06
8	.27	1.3	1.1	1.7	2.1	3.1	2.6	.92	.43	.18	.06	.06
9	.17	1.1	2.3	1.6	2.1	1.6	2.5	.86	.34	.14	4.4	.06
10	.11	.96	1.3	1.4	1.8	1.5	5.5	.75	.26	.10	.89	.04
11	.12	.91	1.2	1.3	1.4	1.6	4.6	.63	.29	.11	.30	.03
12	.14	.89	1.1	1.4	1.2	1.9	2.9	.58	.28	.14	.36	.02
13	.17	.86	1.0	1.3	1.1	1.9	2.6	.61	9.8	.09	.19	.00
14	.18	.84	.98	1.3	.99	1.6	2.1	.51	4.0	.07	.14	.00
15	.37	.79	.96	1.2	1.3	1.4	1.7	.43	1.4	.06	.12	.01
16	.57	1.4	20	1.2	2.1	1.4	1.6	.39	1.2	.04	.08	.01
17	.36	1.2	7.0	1.1	1.4	1.8	1.9	.37	8.9	.03	.07	.01
18	.38	1.1	2.5	1.0	1.2	1.4	8.1	.33	1.5	.03	.05	.00
19	1.1	1.1	1.7	1.1	2.0	1.3	2.1	.31	1.2	.02	.02	.00
20	.98	1.4	1.5	1.2	2.2	1.2	1.8	.38	.90	.14	.02	.01
21	.83	1.4	1.4	1.1	2.5	1.3	1.7	.40	.73	.11	.03	.05
22	.66	1.2	1.3	1.0	2.0	1.2	1.5	.37	.61	.04	.01	.11
23	.82	1.2	12	.98	1.6	.99	1.3	.62	.65	.03	.02	.34
24	.88	1.1	2.7	2.1	1.5	.97	1.3	.53	.46	.02	.03	.11
25	1.0	1.2	1.9	1.7	1.1	.94	1.2	.50	.38	.01	.32	.10
26	1.8	1.1	1.5	1.4	1.1	1.2	12	.32	.34	.01	.06	.12
27	1.3	1.2	2.4	1.3	1.0	.94	17	.24	.31	.01	.03	1.0
28	1.1	1.2	2.3	1.2	1.0	.80	15	.29	.36	1.1	.04	.34
29	.68	1.2	2.2	1.1	---	.78	3.3	1.9	2.5	.24	.01	.29
30	.52	1.2	1.6	1.3	---	.76	2.2	.52	1.1	.09	.01	.31
31	.46	---	1.5	1.8	---	1.3	---	1.5	---	.10	.02	---
TOTAL	16.47	30.18	95.54	130.78	111.59	48.12	134.24	23.63	44.04	5.26	7.87	4.40
MEAN	.53	1.01	3.08	4.22	3.99	1.55	4.47	.76	1.47	.17	.25	.15
MAX	1.8	1.6	20	74	50	9.1	21	1.9	9.8	1.1	4.4	1.0
MIN	.03	.38	.96	.98	.99	.76	.94	.24	.26	.01	.01	.00
CFSM	.43	.83	2.53	3.46	3.27	1.27	3.66	.62	1.21	.14	.21	.12
IN.	.50	.92	2.91	3.98	3.40	1.47	4.09	.72	1.34	.16	.24	.13

CAL YR 1981 TOTAL 599.75 MEAN 1.64 MAX 200 MIN .00 CFSM 1.34 IN 18.27
WTR YR 1982 TOTAL 652.12 MEAN 1.79 MAX 74 MIN .00 CFSM 1.47 IN 19.87

01399545 LAMINGTON RIVER AT LAMINGTON, NJ

LOCATION.--Lat 40°39'38", long 74°43'46", Somerset County, Hydrologic Unit 02030105, at bridge on State Route 523 in Lamington, 0.4 mi (0.6 km) downstream from Cold Brook, and 3.8 mi (6.1 km) south of Potterstown.

DRAINAGE AREA.--53.6 mi^2 (138.8 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 07...	1000	75	234	7.8	11.0	10.4	4.0	170	540	78
FEB 04...	1200	448	148	6.3	.0	14.9	3.3	230	920	31
MAR 17...	1315	92	198	8.2	4.0	14.7	<.7	70	11	56
MAY 20...	1400	42	228	8.6	21.0	11.1	E2.8	110	170	68

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 07...	18	8.0	18	1.7	60	--	18	21	<.1
FEB 04...	7.3	3.1	12	1.3	20	--	11	16	.1
MAR 17...	13	5.6	17	1.2	37	--	17	22	<.1
MAY 20...	16	6.8	14	1.1	56	<.5	16	20	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	11	145	.010	.76	--	E.10	--	.28	2.8
FEB 04...	6.9	90	.040	.70	--	.62	1.3	.18	5.4
MAR 17...	9.2	112	.010	.80	.110	E1.10	--	.09	2.2
MAY 20...	12	133	.010	1.1	<.050	.15	1.2	.28	2.4

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 20...	1400	20	1	<10	10	<1	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY 20...	210	3	20	<.1	6	<1	10	<1

01399690 SOUTH BRANCH ROCKAWAY CREEK AT WHITEHOUSE, NJ

LOCATION.--Lat 40°37'24", long 74°46'01", Hunterdon County, Hydrologic Unit 02030105, on right upstream wingwall of bridge on U.S. Route 22, 0.6 mi (1.0 km) north of Whitehouse Station, 0.9 mi (1.5 km) west of Whitehouse, and 0.3 mi (0.5 km) upstream from mouth.

DRAINAGE AREA.--13.2 mi^2 (34.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1964-67. March 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 113.52 ft (34.60 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for period of no gage-height record, Feb. 11 to Mar. 25, which are poor. Releases from Round Valley Reservoir enter stream 1,700 ft (518 m) upstream of gage (see Raritan River basin, reservoirs in).

AVERAGE DISCHARGE.--5 years, 41.0 ft^3/s (1.161 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,480 ft^3/s (41.9 m^3/s) Jan. 24, 1979, gage height, 12.82 ft (3.908 m); minimum, 0.42 ft^3/s (0.012 m^3/s) Sept. 22, 1981, gage height, 4.34 ft (1.323 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 982 ft^3/s (27.8 m^3/s) Jan. 4, gage height, 10.98 ft (3.347 m); minimum, 1.1 ft^3/s (0.031 m^3/s) Oct. 25, gage height, 4.39 ft (1.338 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	6.2	12	78	89	10	23	25	17	13	6.0	152
2	17	6.7	109	32	29	11	12	21	87	12	37	109
3	5.8	5.8	20	19	370	11	105	19	22	15	46	55
4	4.6	5.5	14	409	92	9.2	99	18	17	16	54	73
5	4.6	5.2	12	73	33	13	31	17	16	12	125	123
6	5.6	12	10	39	23	12	32	16	19	11	130	134
7	7.5	7.6	8.6	30	17	49	26	15	18	10	158	142
8	4.5	6.1	16	22	14	40	29	14	14	10	158	161
9	3.8	5.8	16	19	15	20	30	14	12	11	116	160
10	3.6	5.4	11	26	13	16	42	13	11	8.2	21	160
11	3.4	5.3	13	35	19	17	43	12	11	8.2	7.1	166
12	3.3	5.0	10	25	19	20	33	12	11	8.6	7.6	174
13	3.4	4.8	9.4	18	14	19	28	13	92	7.8	5.2	185
14	3.5	5.0	10	31	15	18	24	12	76	7.4	11	194
15	3.4	5.3	50	29	15	15	20	10	26	7.2	31	191
16	3.8	13	84	25	20	14	29	9.6	20	7.0	51	169
17	3.3	8.5	40	21	18	18	18	9.2	66	6.8	99	166
18	4.4	6.9	25	25	14	16	61	8.9	21	6.4	145	181
19	8.0	6.0	20	26	19	14	23	8.8	17	6.6	153	202
20	3.3	11	18	26	24	13	20	11	14	8.7	148	174
21	4.6	9.5	17	24	27	13	19	12	12	9.0	155	156
22	3.9	6.8	17	18	23	13	16	9.3	11	6.3	187	96
23	6.3	6.1	22	31	18	12	15	14	13	6.0	189	39
24	12	5.8	31	51	17	11	14	13	10	6.0	188	59
25	6.0	5.6	23	35	14	11	13	20	9.8	5.5	84	87
26	14	5.2	18	27	14	15	67	11	10	5.5	54	99
27	14	5.6	14	24	16	12	74	9.4	10	5.5	92	30
28	35	5.5	15	25	11	10	136	9.7	13	28	85	9.0
29	10	5.3	15	25	---	10	40	67	24	11	111	34
30	7.9	4.9	13	25	---	10	30	17	23	6.8	137	57
31	7.2	---	12	25	---	17	---	26	---	6.8	158	---
TOTAL	221.7	197.4	705.0	1318	1012	489.2	1152	486.9	722.8	289.3	2948.9	3737.0
MEAN	7.15	6.58	22.7	42.5	36.1	15.8	38.4	15.7	24.1	9.33	95.1	125
MAX	35	13	109	409	370	49	136	67	92	28	189	202
MIN	3.3	4.8	8.6	18	11	9.2	12	8.8	9.8	5.5	5.2	9.0

CAL YR 1981 TOTAL 12919.3 MEAN 35.4 MAX 265 MIN 2.9
WTR YR 1982 TOTAL 13280.2 MEAN 36.4 MAX 409 MIN 3.3

01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ

LOCATION.--Lat 40°37'49", long 74°44'11", Hunterdon County, Hydrologic Unit 02030105, on right bank at bridge on Lamington Road, 1.4 mi (2.3 km) northeast of Whitehouse, and 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--37.1 mi² (96.1 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-62, 1964-65, 1973. April 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 99.64 ft (30.370 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Releases are made from Round Valley Reservoir to South Branch Rockaway Creek, 2.6 mi (4.2 km) upstream of gage (see Raritan River basin, reservoirs in).

AVERAGE DISCHARGE.--5 years, 84.3 ft³/s (2.387 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,510 ft³/s (99.4 m³/s) Jan. 24, 1979, gage height, 9.55 ft (2.911 m); minimum, 0.90 ft³/s (0.025 m³/s) Dec. 4, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1400	*2510	71.1	7.68	2.341
Feb. 3	1415	2320	65.7	7.33	2.234
Apr. 3	2230	1260	35.7	5.41	1.649

Minimum discharge, 9.6 ft³/s (0.27 m³/s) Oct. 4, 5, 6, gage height, 1.65 ft (0.503 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	33	221	537	36	70	106	44	35	16	152
2	43	16	322	105	272	37	41	94	190	29	21	103
3	15	15	71	58	1740	37	260	85	48	32	34	73
4	9.8	14	48	1060	934	32	313	77	40	43	38	66
5	9.7	14	41	218	132	45	90	69	36	29	92	114
6	10	27	37	121	102	41	92	63	43	27	96	128
7	15	21	33	99	85	176	86	58	45	25	129	135
8	11	16	40	77	85	130	86	50	35	24	129	159
9	11	15	59	69	69	62	89	49	31	26	167	159
10	10	15	45	88	64	56	114	45	27	20	48	159
11	10	15	40	108	67	58	133	42	26	20	22	167
12	10	15	30	86	64	68	111	40	25	21	24	180
13	10	14	30	73	47	65	91	44	198	19	18	198
14	11	14	34	89	52	62	82	40	188	18	20	208
15	11	14	160	82	49	50	68	36	58	18	39	209
16	12	27	257	73	72	47	72	34	44	17	50	178
17	12	21	98	59	61	63	63	33	224	17	84	169
18	14	18	67	73	47	54	185	32	68	16	122	189
19	25	16	56	76	63	48	75	31	56	16	131	223
20	14	25	55	76	79	45	66	32	51	21	133	186
21	14	26	53	71	95	46	64	35	45	22	136	158
22	13	19	52	65	79	46	58	30	41	16	178	103
23	16	17	69	85	60	40	53	36	44	15	182	55
24	34	17	99	156	56	38	50	42	37	15	182	56
25	18	18	62	90	47	37	47	45	34	13	98	83
26	33	18	51	77	48	48	190	33	32	13	47	101
27	35	20	43	66	57	42	228	27	31	13	83	64
28	98	20	47	73	38	34	464	27	34	76	73	22
29	27	20	46	73	---	33	181	152	56	27	95	37
30	20	21	38	72	---	33	132	45	65	18	122	60
31	18	---	40	73	---	44	---	62	---	17	148	---
TOTAL	605.5	544	2156	3312	5101	1653	3654	1594	1896	718	2757	3894
MEAN	19.5	18.1	69.5	123	182	53.3	122	51.4	63.2	23.2	88.9	130
MAX	98	27	322	1060	1740	176	464	152	224	76	182	223
MIN	9.7	14	30	58	38	32	41	27	25	13	16	22

CAL YR 1981 TOTAL 21355.0 MEAN 58.5 MAX 874 MIN 4.8
WTR YR 1982 TOTAL 28384.5 MEAN 77.8 MAX 1740 MIN 9.7

01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1977 to September 1978.
WATER TEMPERATURES: April 1977 to September 1978.
SEDIMENT ANALYSES: October 1976 to September 1978.

REMARKS.--Water-quality samples for Aug. 24 and Sept. 16 are affected by releases from Round Valley Reservoir.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 10...	1000	63	182	8.1	.0	13.2	E1.7	130	33	61
MAR 18...	0945	54	187	8.7	4.5	15.7	E2.3	2	14	61
MAY 19...	1030	31	209	8.1	17.0	6.9	E2.0	1300	350	74
JUL 07...	1145	25	211	8.7	19.0	12.5	E1.8	1100	920	80
AUG 24...	0940	197	153	7.6	16.0	10.2	E1.5	50	43	60
SEP 16...	1030	182	154	7.8	15.0	10.0	E2.1	<20	6	58

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 10...	15	5.6	8.8	1.2	34	--	20	12	<.1
MAR 18...	15	5.8	8.9	1.2	37	--	22	11	<.1
MAY 19...	18	7.0	7.3	1.3	58	--	20	9.3	<.1
JUL 07...	20	7.4	8.3	1.1	60	--	18	10	<.1
AUG 24...	15	5.5	5.7	1.0	43	--	17	8.5	.2
SEP 16...	14	5.7	6.1	1.0	43	<.5	18	8.7	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE .TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 10...	15	96	.030	1.5	.140	.17	1.7	.09	1.2
MAR 18...	14	111	.010	1.1	.100	E.53	--	.12	1.3
MAY 19...	12	123	.020	1.2	<.050	.20	1.4	.09	2.1
JUL 07...	15	156	.030	1.2	.080	.37	1.6	.15	1.9
AUG 24...	1.3	85	<.010	.22	.080	.30	.52	.18	2.2
SEP 16...	1.1	84	<.010	<.10	<.050	.23	--	.18	2.2

01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP								
16...	1030	10	1	<10	10	1	<10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP								
16...	110	4	40	<.1	2	1	30	<1

01399780 LAMINGTON (BLACK) RIVER AT BURNT MILLS, NJ

LOCATION.--Lat 40°38'04", long 74°41'13", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road in Burnt Mills, 1,400 ft (427 m) upstream from mouth, and 2.4 mi (3.9 km) southwest of Greater Cross Roads.

DRAINAGE AREA.--100 mi² (259 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
07...	1130	46	245	7.4	11.0	10.4	3.7	130	170	80
FEB										
02...	1300	500	195	7.1	.0	13.5	2.9	490	1600	46
MAR										
18...	1100	155	200	8.8	5.5	16.0	E1.8	<20	4	58
JUN										
01...	1030	150	157	7.2	16.5	9.3	E1.6	700	>2400	64
JUL										
07...	1300	90	208	8.5	20.0	11.2	E2.0	340	350	73
AUG										
18...	1115	165	172	8.4	15.0	10.5	E2.6	50	540	61
SEP										
15...	1430	200	162	8.6	18.5	10.6	E2.8	<20	540	61

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
07...	20	7.4	12	1.9	63	.2	20	16	<.1
FEB									
02...	11	4.4	15	2.0	20	--	16	26	.1
MAR									
18...	14	5.5	13	1.1	37	--	20	21	<.1
JUN									
01...	16	5.9	11	1.0	46	--	16	12	.1
JUL									
07...	18	6.7	13	.7	56	--	13	14	<.1
AUG									
18...	15	5.7	8.5	<.1	47	--	16	9.1	.1
SEP									
15...	15	5.6	7.0	1.1	45	--	19	9.4	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
07...	7.6	130	.010	.65	--	E.20	--	.15	2.7
FEB									
02...	9.1	110	E.030	1.0	--	.59	1.6	.25	4.5
MAR									
18...	11	113	<.010	.90	<.050	E.67	--	.09	1.8
JUN									
01...	13	122	.020	.70	.170	.65	1.3	.25	5.5
JUL									
07...	13	134	.020	.70	<.050	.46	1.2	.21	3.5
AUG									
18...	4.4	110	<.010	<.20	<.050	.38	--	.09	3.7
SEP									
15...	1.6	95	<.010	.11	.070	.29	.40	.06	3.7

01399780 LAMINGTON (BLACK) RIVER AT BURNT MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
07...	1130	1190	<.1	6.2	20	2	1	<10	60	<1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
07...	10	<1	<10	5	<1	170	320	1	<10	20	480

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
07...	<.1	<.01	3	<10	<1	<1	30	11	--	1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
07...	<.1	<1.0	<.1	.4	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
07...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1

01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ

LOCATION.--Lat 40°34'10", long 74°40'45", Somerset County, Hydrologic Unit 02030105, on right bank, 400 ft (120 m) upstream from U.S. Highway 202, 1.4 mi (2.3 km) upstream from confluence with South Branch, and 2.7 mi (4.3 km) west of Raritan.

DRAINAGE AREA.--190 mi² (492 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1923 to current year. Monthly discharge only for June 1923, published in WSP 1302. Prior to October 1943, published as "at Milltown".

REVISED RECORDS.--WSP 1552: 1924-26, 1928-35. WDR NJ-79-1: 1971-78(P).

GAGE.--Water-stage recorder. Concrete control since Sept. 1, 1936. Datum of gage is 50.43 ft (15.371 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1936, nonrecording gage at site 30 ft (9.1 m) downstream at same datum.

REMARKS.--Water-discharge records good except those for periods of no gage-height record, Jan. 5 to Feb. 5, which are fair. Some regulation by Round Valley Reservoir.

AVERAGE DISCHARGE.--59 years, 304 ft³/s (8.609 m³/s) unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft³/s (810 m³/s) Aug. 28, 1971, gage height, 15.47 ft (4.715 m), from high-water mark in gage house, from rating curve extended above 15,000 ft³/s (420 m³/s); minimum observed, about 3 ft³/s (0.08 m³/s) Nov. 28, 1930, gage height, 1.72 ft (0.524 m) result of freezeup, minimum daily, 7.5 ft³/s (0.21 m³/s) Sept. 26, 27, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1715	10,400	295	10.24	3.121
Feb. 3	---	*14,500	411	11.68	3.560

Minimum discharge, 41 ft³/s (1.16 m³/s) Oct. 1, gage height, 2.52 ft (0.768 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	115	91	847	2450	199	376	594	283	229	92	227
2	165	108	1360	623	1400	202	234	511	662	193	86	209
3	90	99	366	331	8800	199	860	437	298	203	101	268
4	62	87	234	5410	2500	170	1870	395	239	245	104	125
5	55	80	201	2300	800	219	597	349	215	172	151	174
6	58	139	171	900	679	228	590	337	233	150	173	195
7	77	130	144	660	520	728	521	298	274	137	195	186
8	62	96	188	505	455	844	499	276	215	130	194	221
9	55	86	241	400	394	394	546	269	181	126	431	220
10	52	82	158	330	366	323	607	245	162	109	237	219
11	50	77	135	300	322	343	725	227	156	102	129	218
12	48	74	122	245	289	385	636	216	144	107	135	231
13	48	70	106	240	262	377	542	221	685	100	128	252
14	49	68	92	250	249	374	484	209	1180	93	118	244
15	47	69	801	270	244	303	401	190	381	91	129	266
16	47	106	1260	260	350	280	376	179	277	85	123	240
17	45	100	470	280	357	356	349	171	1220	81	157	218
18	49	84	327	270	268	322	928	163	487	77	197	238
19	99	78	238	260	341	282	461	154	366	73	196	256
20	76	104	189	250	442	256	395	167	321	76	215	255
21	60	144	156	240	488	259	377	180	267	119	184	221
22	59	103	191	235	453	266	339	153	234	81	240	198
23	65	90	356	315	347	229	306	191	238	74	240	270
24	195	84	428	900	321	214	285	220	200	74	254	127
25	109	78	271	600	263	206	267	251	175	67	248	157
26	154	73	206	410	227	243	691	180	161	65	115	158
27	222	73	213	290	233	237	1250	154	149	86	158	306
28	677	72	293	265	212	196	2320	148	153	505	134	152
29	213	68	251	250	---	189	929	748	314	216	141	101
30	146	68	212	240	---	185	729	312	562	114	174	127
31	126	---	173	240	---	225	---	362	---	99	201	---
TOTAL	3302	2705	9644	18916	24032	9233	19490	8507	10432	4079	5380	6289
MEAN	107	90.2	311	610	858	298	650	274	348	132	174	210
MAX	677	144	1360	5410	8800	844	2320	748	1220	505	431	306
MIN	42	68	91	235	212	170	234	148	144	65	86	101

CAL YR 1981 TOTAL 81272 MEAN 223 MAX 6170 MIN 40
WTR YR 1982 TOTAL 122009 MEAN 334 MAX 8800 MIN 42

01400120 RARITAN RIVER AT RARITAN, NJ

LOCATION.--Lat 40°33'52", long 74°38'10", Somerset County, Hydrologic Unit 02030105, at bridge on South Branch-Raritan Road in Raritan, 1.7 mi (2.7 km) upstream from Peters Brook, 3.5 mi (5.6 km) northeast of South Branch, and 3.6 mi (5.8 km) southeast of North Branch.

DRAINAGE AREA.--474 mi² (1,228 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
21...	1100	205	204	8.4	9.0	12.2	1.3	22	23	88
FEB										
10...	1300	1000	239	7.7	1.0	14.0	4.2	50	<20	69
APR										
13...	1045	1650	202	7.7	7.5	11.3	1.6	130	20	63
MAY										
24...	1300	520	252	7.7	13.5	9.6	2.5	9200	1300	83
JUL										
20...	1115	310	232	8.2	28.5	7.4	1.9	700	130	81
AUG										
25...	1030	348	208	8.2	21.0	8.4	1.0	230	130	76
SEP										
23...	1100	518	236	8.1	16.5	9.4	1.5	>2400	>2400	88

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
21...	22	8.0	12	1.9	60	<.1	26	15	<.1
FEB									
10...	17	6.4	18	1.5	36	--	23	31	<.1
APR									
13...	15	6.3	14	1.2	34	--	23	21	.1
MAY									
24...	21	7.5	12	1.6	53	--	24	22	<.1
JUL									
20...	20	7.5	11	1.1	62	--	22	15	.1
AUG									
25...	19	6.9	8.8	1.2	39	--	21	14	.3
SEP									
23...	22	8.0	13	1.9	58	<.5	25	16	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
21...	4.1	141	--	.49	--	.48	.97	.21	.7
FEB									
10...	12	163	--	1.8	.230	.25	2.0	.18	1.9
APR									
13...	9.7	123	.020	1.7	.060	.40	2.1	.12	2.6
MAY									
24...	11	146	.080	1.5	.250	E1.00	--	.37	2.4
JUL									
20...	7.0	161	.020	.60	.190	.54	1.1	.34	3.1
AUG									
25...	3.2	115	<.010	.31	<.050	.53	.84	.15	4.4
SEP									
23...	5.2	144	E.010	.50	<.050	.35	.85	.31	3.5

01400120 RARITAN RIVER AT RARITAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT 21...	1100	411	.1	3.0	<10	1	<1	<10	40	<1	<1
SEP 23...	1100	--	--	--	20	2	--	<10	50	<1	--

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT 21...	10	6	<10	9	16	160	6000	1	<10	10	1100
SEP 23...	10	--	--	3	--	760	--	5	--	50	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 21...	<.1	<.01	1	<10	<1	<1	50	35	3	<1	<1.0
SEP 23...	<.1	--	2	--	<1	--	30	--	3	--	--

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 21...	<.1	<1.0	1.2	.1	.1	1.4	<.1	<.1	<.1	<.1	<.1
SEP 23...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 21...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
SEP 23...	--	--	--	--	--	--	--	--	--	--	--

01400300 PETERS BROOK NEAR RARITAN, NJ

LOCATION.--Lat 40°35'35", long 74°40'00", Somerset County, Hydrologic Unit 02030105, on left bank 12 ft (3.7 m) upstream from bridge on Garretson Road, 1.5 mi (2.4 km) north of Raritan, and 2.5 mi (4.0 km) from mouth.

DRAINAGE AREA.--4.19 mi^2 (10.85 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1978 to current year.

REVISED RECORD.--WDR NJ-79-1: 1978(P).

GAGE.--Water-stage recorder. Datum of gage is 68.713 ft (20.944 m) National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Water-discharge records fair.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 940 ft^3/s (26.6 m^3/s) May 11, 1981, gage height, 7.46 ft (2.274 m); no flow part or all of some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Jan. 4	1045	*830	23.5	6.99	2.131

Minimum, 0.04 ft^3/s (0.001 m^3/s) July 27, 28, Sept. 17-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	.37	30	60	116	1.4	7.4	1.4	.40	.89	.26	.94
2	15	.33	94	6.3	23	1.5	1.5	1.2	9.1	.70	.24	1.6
3	.24	.30	4.2	1.4	205	1.5	87	.94	.22	2.2	.21	6.5
4	.16	.28	1.6	243	38	1.3	25	.83	.15	1.2	.18	.46
5	.14	.32	1.2	24	10	2.5	4.3	.73	.17	.63	13	.28
6	3.4	19	1.0	10	5.0	2.1	5.7	.68	.19	.51	.78	.21
7	1.9	.95	.99	7.7	2.9	67	6.0	.67	.22	.43	.51	.20
8	.24	.50	7.5	4.9	2.2	17	14	.60	.15	.34	.51	.17
9	.18	.42	2.2	3.8	3.3	3.3	7.1	.56	.12	.31	6.9	.19
10	.18	.38	1.1	2.5	2.8	2.1	13	.45	.11	.29	1.6	.17
11	.15	.36	.89	1.7	1.9	2.8	7.1	.38	.11	.28	1.1	.14
12	.13	.36	.76	1.3	1.5	3.8	3.7	.47	.10	.28	1.9	.13
13	.13	.32	.64	1.2	1.4	3.4	3.0	.59	75	.24	.85	.12
14	.15	.32	1.3	1.3	1.4	2.7	2.6	.44	4.8	.23	.95	.12
15	.15	.46	147	1.1	1.9	1.8	1.6	.39	2.2	.21	.58	.12
16	.15	2.7	71	.91	3.7	1.7	1.1	.27	3.2	.20	.49	.20
17	.16	.64	11	.80	2.7	3.9	2.3	.40	34	.19	.33	.09
18	4.4	.56	3.9	.63	1.9	2.2	28	.21	2.0	.17	.26	.06
19	1.6	.46	1.6	.46	18	1.7	1.8	.21	1.4	.17	.24	.05
20	.17	2.0	.99	.37	13	1.5	1.2	.20	1.0	.21	.23	.59
21	.15	.85	.78	.42	16	1.9	1.0	.18	.94	.17	.22	.34
22	.14	.55	.82	.66	9.1	1.6	.84	.14	.80	.14	.21	1.2
23	7.4	.47	32	13	4.1	1.3	.73	.19	1.5	.14	.23	24
24	5.1	.47	6.8	23	3.2	1.2	.63	.15	.69	.12	.22	.69
25	.35	.46	2.5	6.1	2.0	1.1	.61	4.7	.54	.10	4.3	.42
26	6.3	.43	1.2	2.4	1.6	1.5	30	.45	.46	.09	.45	.27
27	36	.46	5.1	2.0	1.5	1.1	43	.11	.48	.08	.30	16
28	18	.43	3.8	1.8	1.5	.94	50	.12	.62	56	.24	.82
29	.97	.40	2.1	1.7	---	.92	3.9	56	16	1.5	.19	.47
30	.55	.39	1.1	1.6	---	.94	1.9	5.1	2.7	.52	.24	.39
31	.42	---	.79	10	---	12	---	.57	---	.32	.21	---
TOTAL	106.11	35.94	439.86	436.05	494.6	149.70	356.01	79.33	159.37	68.86	37.93	56.94
MEAN	3.42	1.20	14.2	14.1	17.7	4.83	11.9	2.56	5.31	2.22	1.22	1.90
MAX	36	19	147	243	205	67	87	56	75	56	13	24
MIN	.13	.28	.64	.37	1.4	.92	.61	.11	.10	.08	.18	.05
CFSM	.82	.29	3.39	3.37	4.22	1.15	2.84	.61	1.27	.53	.29	.45
IN.	.94	.32	3.90	3.87	4.39	1.33	3.16	.70	1.41	.61	.34	.51

CAL YR 1981 TOTAL 1738.36 MEAN 4.76 MAX 147 MIN .12 CFSM 1.14 IN 15.43
WTR YR 1982 TOTAL 2420.70 MEAN 6.63 MAX 243 MIN .05 CFSM 1.58 IN 21.49

01400350 MACS BROOK AT SOMERVILLE, NJ

LOCATION.--Lat 40°34'26", long 74°37'06", Somerset County, Hydrologic Unit 02030105, on left upstream wingwall of culvert under access road from U.S. Highway 22 west to U.S. Highways 202 and 206, 1,200 ft (30.4 m) upstream from Peters Brook, and 0.4 mi (0.6 km) north of Somerville.

DRAINAGE AREA.--0.77 mi^2 (1.81 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to September 1982.

GAGE.--Water-stage recorder. Datum of gage is 58.37 ft (17.791 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those below 0.5 ft^3/s (0.014 m^3/s), which are poor.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD JUNE TO SEPTEMBER.--Maximum discharge, 152 ft^3/s (4.30 m^3/s) July 28, gage height 2.99 ft (0.911 m); no flow part of many days in September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									.60	.22	.15	.22
2									1.4	.19	.14	.38
3									.51	.57	.14	.61
4									.45	.27	.14	.02
5							†1.0,0.96		.43	.19	1.2	.01
6									.41	.16	.07	.01
7									.56	.16	.04	.01
8									.33	.15	.03	.01
9									.27	.14	.51	.01
10									.24	.13	.07	.01
11									.22	.13	.08	.01
12									.22	.13	.31	.01
13									12	.11	.04	.01
14									3.5	.12	.02	.01
15									.76	.10	.02	.01
16									1.1	.09	.02	.01
17									5.1	.11	.02	.01
18									.69	.10	.02	.01
19									.50	.10	.02	.01
20									.42	.13	.02	.11
21									.35	.09	.02	.02
22									.29	.09	.01	.21
23									.46	.09	.02	4.6
24									.25	.07	.02	.04
25									.22	.07	.49	.02
26									.22	.09	.02	.02
27									.21	.09	.02	2.3
28							†5.6,6.3,4.9		.24	8.2	.01	.10
29									2.0	.40	.01	.05
30									.44	.19	.01	.05
31									---	.16	.01	---
TOTAL									34.39	12.84	3.70	8.90
MEAN									1.15	.41	.12	.30
MAX									12	8.2	1.2	4.6
MIN									.21	.07	.01	.01
CFSM									1.49	.53	.16	.39
IN.									1.66	.62	.18	.43

† Result of discharge measurements.

01400500 RARITAN RIVER AT MANVILLE, NJ

LOCATION.--Lat 40°33'18", long 74°35'02", Somerset County, Hydrologic Unit 02030105, on left bank at downstream side of highway bridge at Manville, and 1.4 mi (2.2 km) upstream from Millstone River.

DRAINAGE AREA.--490 mi^2 (1,269 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to March 1907 (published as "at Finderne"), August 1908 to April 1915 (gage heights only, published in WSP 521), August 1921 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1552: 1904, 1906, 1922, 1923(M), 1924-25, 1926-29(M), 1930, 1932-33(M), 1924-54. WDR NJ-75-1: 1964(M), 1969(M), 1970(P), 1972(P), 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 20.61 ft (6.282 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 15, 1923, nonrecording gage on downstream side of highway bridge at same site and datum. From Oct. 1, 1952 to Sept. 30, 1966, water-stage recorder at station at Bound Brook, above Calco Dam (station 01403000) used as auxiliary gage when stage is above 5.0 ft (1.52 m). Since Oct. 1, 1966, water-stage recorder at station at Bound Brook, used as auxiliary gage, was moved downstream to present site (station 01403060). Between June 9, 1978 and June 7, 1979 gage temporarily relocated at site 1.4 mi (2.2 km) downstream, just upstream of Millstone River, because of reconstruction of highway bridge.

REMARKS.--Records fair except those over 3,000 ft^3/s (85.0 m^3/s), which are poor. Records given herein represent flow at gage only. Slight diurnal fluctuation at low flow. Flow regulated by Spruce Run and Round Valley Reservoirs (see Raritan River Basin, reservoirs in). Diversion to Round Valley Reservoir (see Raritan River Basin, diversions). Water diverted 1,500 ft (460 m) upstream from station by Johns-Manville Corporation and returned to river 600 ft (180 m) downstream from Millstone River (see Raritan River Basin, diversions).

AVERAGE DISCHARGE.--64 years, (water years 1904-06, 1922-82), 758 ft^3/s (21.47 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,300 ft^3/s (1,030 m^3/s) Aug. 28, 1971, gage height, 23.8 ft (7.25 m), from floodmark (backwater from Millstone River), from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area measurements at gage heights, 14.9 and 20.42 ft (4.54 and 6.224 m); minimum daily discharge, 17 ft^3/s (0.48 m^3/s) Sept. 19, 1964 (does not include water diverted to Johns-Manville Plant).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft^3/s (283 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	0100	*17000	481	16.60	5.060
Feb. 4	0015	12400	351	14.08	4.292

Minimum discharge, 110 ft^3/s (3.12 m^3/s) Nov. 30, Dec. 1, gage height, 3.80 ft (1.158 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	233	209	1300	2900	409	716	1300	879	723	238	299
2	459	215	2330	1700	3000	411	532	1110	1600	488	228	310
3	296	196	1010	888	9790	374	1030	977	975	445	252	487
4	209	176	576	7140	8670	319	5580	832	648	841	258	308
5	217	181	457	9760	2500	367	1840	693	556	499	284	315
6	222	312	380	2200	1410	440	1470	642	558	395	261	291
7	232	294	327	1520	986	1100	1430	591	610	333	264	270
8	201	215	344	1170	784	2400	1210	571	560	305	263	313
9	185	180	435	914	766	1090	1250	558	453	288	671	312
10	198	189	316	621	727	853	1200	542	394	260	977	311
11	239	198	266	520	612	847	1770	484	370	257	458	300
12	242	190	238	474	533	863	1610	428	385	306	324	311
13	247	180	207	558	523	915	1360	429	968	257	277	311
14	238	183	190	1060	475	895	1210	428	3620	264	242	308
15	233	205	1180	857	477	736	973	401	1460	288	259	346
16	236	294	2960	743	597	711	884	380	947	234	269	328
17	234	283	1200	638	687	826	754	366	2820	225	250	286
18	231	218	863	582	546	690	1900	355	1770	246	272	299
19	284	193	619	618	644	607	1080	340	1100	271	282	313
20	253	208	461	678	839	580	925	368	968	297	302	330
21	197	311	385	594	917	582	863	525	810	389	251	287
22	171	260	407	475	983	610	749	381	573	244	326	297
23	198	204	618	563	789	529	643	407	561	210	310	592
24	322	185	1150	1190	731	458	548	500	496	198	313	984
25	245	174	774	1110	587	432	505	855	435	181	380	1710
26	259	194	546	782	455	468	876	539	396	259	276	1160
27	438	202	528	618	461	496	2730	418	375	288	256	756
28	1380	188	639	544	447	395	4620	371	380	1280	208	465
29	597	159	576	532	---	359	2190	1800	638	724	204	220
30	337	155	496	504	---	350	1580	1180	1530	309	235	206
31	265	---	398	1000	---	364	---	1210	---	273	256	---
TOTAL	9308	6375	21085	41858	42836	20476	44028	19981	27835	11577	9646	13025
MEAN	300	213	680	1350	1530	661	1468	645	928	373	311	434
MAX	1380	312	2960	9760	9790	2400	5580	1800	3620	1280	977	1710
MIN	171	155	190	474	447	319	505	340	370	181	204	206

CAL YR 1981 TOTAL 164982 MEAN 452 MAX 12100 MIN 147
WTR YR 1982 TOTAL 268030 MEAN 734 MAX 9790 MIN 155

01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1959, 1962-73, 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 15...	1045	232	223	8.4	11.0	12.1	1.2	7	5	87
FEB 08...	1100	728	191	7.6	.5	14.2	1.5	17	33	61
MAR 25...	1045	424	232	9.0	8.5	13.5	1.5	21	2	74
JUN 16...	1000	943	208	7.7	19.5	8.6	1.5	1600	540	69
JUL 28...	1245	1450	153	7.6	25.0	6.6	5.9	--	--	49
SEP 09...	1100	318	217	8.2	18.5	10.1	.7	49	23	77
22...	1030	324	229	7.6	16.5	9.6	1.6	540	540	84

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 15...	22	7.9	11	1.7	57	<.1	29	13	.1
FEB 08...	15	5.7	11	1.6	31	--	22	17	.2
MAR 25...	18	7.1	14	1.2	41	--	26	21	<.1
JUN 16...	17	6.5	11	1.6	40	--	22	13	<.1
JUL 28...	13	4.0	7.8	1.8	30	--	20	9.2	.1
SEP 09...	19	7.2	11	1.3	55	--	23	13	.1
22...	21	7.6	11	1.7	58	<.5	29	15	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 15...	2.0	140	--	.28	--	E1.90	--	.18	2.1
FEB 08...	11	98	--	1.8	--	.38	2.2	.15	1.9
MAR 25...	5.3	126	.030	1.2	<.050	E.55	--	.15	2.5
JUN 16...	11	134	.030	2.2	.090	.45	2.7	.28	3.3
JUL 28...	4.4	100	.100	--	--	1.30	--	.55	6.0
SEP 09...	3.3	107	<.010	.30	.140	.38	.68	.15	2.5
22...	3.5	136	<.010	.30	.050	.41	.71	.09	2.4

01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
15...	1045	--	--	--	20	2	--	<10	20	<1	--
SEP											
22...	1030	400	.4	3.8	20	2	<1	<10	40	<1	1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
15...	10	--	--	4	--	120	--	2	--	20	--
SEP											
22...	10	2	<10	5	7	160	1600	3	50	20	270

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
15...	<.1	--	4	--	<1	--	40	--	<1	--	--
SEP											
22...	.2	<.01	3	<10	<1	<1	10	51	1	3	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.1	<1.0	1.5	<.1	.3	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01400540 MILLSTONE RIVER NEAR MANALAPAN, NJ

LOCATION.--Lat 40°15'44", long 74°25'13", Middlesex County, Hydrologic Unit 02030105, at bridge on State Route 33, 1.3 mi (2.1 km) west of Manalapan, 5.5 mi (8.8 km) east of Hightstown, and 8.4 mi (13.5 km) above Rocky Brook.

DRAINAGE AREA.--7.37 mi² (19.1 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960 to 1964, June 1981 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 28...	1030	112	5.8	.0	11.5	1.2	2	<2	30
MAR 18...	1045	104	6.3	7.0	11.8	--	<2	<20	29
JUN 02...	1345	105	7.4	18.5	8.4	.9	350	1700	29
JUL 13...	1100	110	6.0	21.0	8.1	2.0	900	1300	30
AUG 03...	1100	144	6.6	20.0	9.7	1.6	140	790	30
SEP 23...	1130	109	6.1	16.0	9.0	1.6	7900	11000	30

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 28...	6.1	3.6	6.4	2.1	2.0	--	19	14	.1
MAR 18...	6.1	3.4	5.8	1.9	4.0	--	21	10	.1
JUN 02...	5.9	3.5	5.0	1.7	8.0	<.5	18	8.7	.2
JUL 13...	6.1	3.7	6.3	2.3	13	--	11	11	.2
AUG 03...	6.4	3.5	5.2	1.6	16	--	9.0	9.3	.2
SEP 23...	6.1	3.7	5.8	3.6	7.0	<.5	12	14	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 28...	10	75	--	1.8	--	.15	1.9	<.06	.8
MAR 18...	10	65	<.010	1.4	.100	.34	1.7	.09	.8
JUN 02...	9.4	72	<.010	1.2	E.060	.55	1.7	.15	3.6
JUL 13...	9.9	97	.010	.90	.090	.66	1.6	.25	4.6
AUG 03...	10	64	<.010	1.0	.050	.41	1.4	.21	3.5
SEP 23...	11	78	<.010	.70	.070	.54	1.2	.31	3.6

01400540 MILLSTONE RIVER NEAR MANALAPAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)
JUN											
02...	1345	--	1	--	<10	20	<1	--	<10	--	--
SEP											
23...	1130	20	3	<1	<10	30	7	<1	10	4	10

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)
JUN										
02...	8	--	2500	--	2	--	80	--	<.1	--
SEP										
23...	1	1	3500	9600	1	10	70	50	<.1	<.01

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN										
02...	1	<1	--	90	--	2	--	--	--	--
SEP										
23...	4	<1	<1	30	18	1	<1	<1.0	<.1	<1.0

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
JUN										
02...	--	--	--	--	--	--	--	--	--	--
SEP										
23...	2.6	1.2	3.0	<.1	.3	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN										
02...	--	--	--	--	--	--	--	--	--	--
SEP										
23...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01400650 MILLSTONE RIVER AT GROVERS MILL, NJ

LOCATION.--Lat 40°19'19", long 74°36'31", Mercer County, Hydrologic Unit 02030105, at bridge on Millstone Road in Grovers Mill, 0.3 mi (0.5 km) upstream from Cranbury Brook, and 2.7 mi (4.4 km) north of Dutch Neck.

DRAINAGE AREA.--43.4 mi^2 (112.4 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 04...	1430	128	6.1	2.5	12.8	3.3	350	>2400	25
MAR 24...	1345	199	7.0	11.5	11.0	--	8	8	49
JUN 01...	1015	141	6.5	19.0	5.4	2.6	--	490	38
JUL 13...	1300	195	6.0	26.0	7.8	2.4	200	200	51
AUG 09...	1100	187	6.0	23.0	6.6	.9	330	350	49
SEP 23...	1330	198	6.1	18.5	7.4	1.8	200	500	46

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 04...	5.8	2.6	12	2.9	4.0	--	16	20	.2
MAR 24...	11	5.2	15	3.6	12	--	28	23	.2
JUN 01...	9.3	3.7	7.9	2.4	10	<.5	24	11	.2
JUL 13...	12	5.2	15	3.0	22	--	18	17	.4
AUG 09...	12	4.7	14	3.3	18	--	15	22	.3
SEP 23...	11	4.4	17	4.2	22	<.5	17	22	.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 04...	4.1	89	--	1.0	--	.95	2.0	.70	4.8
MAR 24...	7.6	115	E.050	2.3	1.80	E2.60	--	--	4.1
JUN 01...	8.8	101	.080	1.4	.480	1.20	2.6	.65	6.4
JUL 13...	4.7	137	.030	3.2	.070	.60	3.8	.58	4.9
AUG 09...	1.9	109	<.010	2.8	E.050	.67	3.5	.45	3.9
SEP 23...	5.4	130	.120	3.5	.070	.77	4.3	.67	--

01400650 MILLSTONE RIVER AT GROVERS MILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
JUN 01...	1015	--	--	--	10	3	--	<10	40	1	--
SEP 23...	1330	460	<.1	1.9	10	2	<1	<10	70	<1	<1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
JUN 01...	10	--	--	7	--	1400	--	8	--	90	--
SEP 23...	<10	2	<10	2	3	380	1500	2	10	30	30

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 01...	<.1	--	6	--	<1	--	40	--	1	--	--
SEP 23...	<.1	<.01	3	<10	<1	<1	50	10	--	4	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 01...	--	--	--	--	--	--	--	--	--	--	--
SEP 23...	<.1	<1.0	1.6	2.1	1.5	<.1	.4	<.1	<.1	<.1	<.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 01...	--	--	--	--	--	--	--	--	--	--	--
SEP 23...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01401000 STONY BROOK AT PRINCETON, NJ

LOCATION.--Lat 40°19'59", long 74°40'56", Mercer County, Hydrologic Unit 02030105, at bridge on U.S. Highway 206, 1.6 mi (2.6 km) southwest of Princeton, and 4.0 mi (6.4 km) upstream from Carnegie Lake.

DRAINAGE AREA.--44.5 mi^2 (115.3 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 62.23 ft (18.968 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records fair. Since July 1959 some regulation by several small reservoirs, combined capacity, 49,800,000 gal (188,500 m^3).

AVERAGE DISCHARGE.--29 years, 63.3 ft^3/s (1.793 m^3/s), 19.32 in/yr (491 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,960 ft^3/s (254 m^3/s) Aug. 28, 1971, gage height, 14.26 ft (4.346 m), from rating curve extended above 4,000 ft^3/s (110 m^3/s) on basis of contracted-opening measurement of peak flow; no flow many days in August and September 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (51.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)	Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Jan. 4	1330	*3550	101	9.39	2.862	Apr. 3	2330	1960	55.5	6.82	2.079
Feb. 3	0645	2360	66.8	7.61	2.320						

Minimum discharge, 0.93 ft^3/s (0.026 m^3/s) Sept. 13, 14, 18, 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	8.8	14	188	508	33	93	81	18	44	4.3	2.9
2	6.4	7.3	234	161	165	35	43	63	28	26	3.5	3.2
3	8.8	6.3	78	75	1480	38	369	51	24	69	3.0	13
4	5.3	5.5	43	1800	360	33	550	46	15	245	2.6	8.4
5	3.5	5.7	36	338	159	55	136	39	13	59	2.1	4.9
6	2.9	19	30	144	113	60	128	34	14	36	2.1	3.1
7	3.1	22	25	111	77	258	115	31	15	28	1.8	2.0
8	2.5	13	32	80	61	276	113	28	13	24	1.6	1.8
9	3.1	8.9	40	60	62	120	142	26	10	20	24	1.5
10	3.1	8.9	29	39	65	85	167	23	8.3	15	22	1.5
11	2.7	8.0	23	38	46	82	224	19	6.9	12	7.6	1.2
12	2.3	9.2	23	45	40	91	163	17	6.8	15	8.4	1.0
13	2.0	6.1	17	44	38	76	111	17	75	18	7.4	.93
14	2.0	5.4	17	63	32	71	93	16	246	11	4.7	1.1
15	1.9	5.3	261	63	35	53	66	13	58	8.6	3.2	1.1
16	2.1	13	464	47	50	48	55	12	35	7.4	2.4	1.1
17	2.1	17	145	40	57	83	51	10	352	6.4	2.1	1.0
18	2.6	20	94	34	40	69	252	9.5	85	5.6	1.9	.94
19	5.9	16	61	32	81	54	97	8.8	47	4.9	1.9	.95
20	4.2	22	42	33	129	46	66	8.9	36	11	1.6	2.1
21	4.6	30	36	32	114	42	55	12	26	25	1.6	2.1
22	3.5	21	39	26	123	41	46	14	21	9.5	1.2	5.3
23	5.8	15	91	50	77	35	39	18	22	5.8	1.1	28
24	15	13	144	112	65	31	35	19	17	4.6	1.3	12
25	11	12	75	70	50	30	32	23	13	3.6	23	5.6
26	14	9.9	53	46	38	32	212	20	11	3.2	13	4.0
27	24	9.6	50	33	36	31	341	13	9.8	2.9	5.5	25
28	113	9.6	67	30	35	25	528	11	9.6	22	3.6	17
29	30	8.6	54	28	---	24	170	83	144	22	2.9	7.5
30	17	7.5	43	25	---	23	109	41	158	9.7	2.3	5.5
31	11	---	33	34	---	32	---	24	---	6.3	1.9	---
TOTAL	316.7	363.6	2393	3921	4136	2012	4601	831.2	1537.4	780.5	165.6	165.72
MEAN	10.2	12.1	77.2	126	148	64.9	153	26.8	51.2	25.2	5.34	5.52
MAX	113	30	464	1800	1480	276	550	83	352	245	24	28
MIN	1.3	5.3	14	25	32	23	32	8.8	6.8	2.9	1.1	.93
CFSM	.23	.27	1.74	2.83	3.33	1.46	3.44	.60	1.15	.57	.12	.12
IN.	.26	.30	2.00	3.28	3.46	1.68	3.85	.69	1.29	.65	.14	.14

CAL YR 1981 TOTAL 12697.30 MEAN 34.8 MAX 739 MIN 1.1 CFSM .78 IN 10.61
WTR YR 1982 TOTAL 21223.72 MEAN 58.1 MAX 1800 MIN .93 CFSM 1.31 IN 17.74

01401000 STONY BROOK AT PRINCETON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-75, 1978 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1956 to September 1962, October 1963 to September 1964, October 1965 to June 1970.
SUSPENDED-SEDIMENT DISCHARGE: January 1956 to June 1970.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 07...	1400	2.4	276	8.2	14.0	9.9	1.4	>2400	540	98
JAN 20...	1400	35	198	7.2	.0	12.7	.5	14	5	65
APR 13...	1300	108	171	7.7	10.0	11.7	2.5	920	540	50
MAY 26...	1345	20	218	9.0	20.0	13.6	<2.4	79	230	70
JUL 14...	1030	12	232	7.5	25.5	9.6	1.6	200	490	66
AUG 24...	1100	1.2	292	7.8	19.5	6.8	.8	79	130	92
SEP 21...	1415	1.6	272	8.1	16.5	10.3	.8	350	220	88

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 07...	24	9.2	22	2.5	71	--	27	24	.5
JAN 20...	15	6.7	13	1.9	33	--	29	16	.1
APR 13...	11	5.5	12	1.3	24	--	25	14	.1
MAY 26...	16	7.2	14	1.9	49	<.5	25	17	.1
JUL 14...	15	7.0	15	2.0	53	--	24	17	.2
AUG 24...	22	8.9	19	2.2	66	--	26	27	.4
SEP 21...	21	8.6	22	1.9	65	<.5	27	26	.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	.6	170	--	<.05	--	E.12	--	.06	3.0
JAN 20...	14	131	--	2.1	--	.28	2.4	.25	2.1
APR 13...	13	101	.010	1.2	.060	.40	1.6	.18	3.3
MAY 26...	7.8	127	.010	.60	.060	E.50	--	.12	2.8
JUL 14...	3.5	139	<.010	.10	.130	.53	.63	.15	--
AUG 24...	4.0	157	<.010	.10	.050	.27	.37	.12	3.4
SEP 21...	3.5	162	<.010	<.10	.100	.30	--	.09	2.3

01401000 STONY BROOK AT PRINCETON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT 07...	1400	2390	.1	6.9	--	--	0	--	--	--	<1
MAY 26...	1345	--	--	--	10	1	--	<10	30	1	--
SEP 21...	1415	1100	.1	4.6	20	2	<1	<10	40	1	<1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT 07...	--	<1	<10	--	8	--	680	--	30	--	470
MAY 26...	10	--	--	6	--	210	--	3	--	20	--
SEP 21...	10	3	10	9	9	80	2800	4	30	10	580

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 07...	--	<.01	--	<10	--	<1	--	34	--	22	<1.0
MAY 26...	<.1	--	3	--	<1	--	40	--	1	--	--
SEP 21...	<.1	<.01	1	<10	<1	<1	10	27	2	15	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 07...	1.9	42	10	4.8	34	<.1	1.1	<.1	<.1	<.1	<.1
MAY 26...	--	--	--	--	--	--	--	--	--	--	--
SEP 21...	<.1	6.0	4.0	3.1	2.3	<.1	.2	<.1	<.1	<.1	.2

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 07...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
MAY 26...	--	--	--	--	--	--	--	--	--	--	--
SEP 21...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01401600 HEATHCOTE BROOK AT KINGSTON, NJ

LOCATION.--Lat 40°22'10", long 74°36'59", Middlesex County, Hydrologic Unit 02030105, at bridge on Mapleton Road in Kingston, 0.3 mi (0.4 km) east of Delaware and Raritan Canal at Kingston, 0.7 mi (1.1 km) downstream from Carters Brook, and 3.8 mi (6.1 km) northwest of Scotts Corners.

DRAINAGE AREA.--9.0 mi² (23.3 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
01...	1215	1.2	475	6.6	12.5	8.2	2.6	920	230	190
JAN										
18...	1045	2.6	248	6.9	.0	12.2	1.5	540	70	69
MAR										
24...	1130	4.0	228	7.3	7.5	12.7	--	70	430	71
MAY										
25...	1330	8.4	171	7.4	15.0	9.5	2.3	2000	>2400	48

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
01...	39	23	15	3.0	5.0	--	170	11	<.1
JAN									
18...	16	7.1	15	2.0	20	--	60	16	<.1
MAR									
24...	16	7.5	13	1.9	20	--	50	16	<.1
MAY									
25...	11	4.9	10	1.8	22	<.5	28	12	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
01...	12	309	--	6.3	--	.07	6.4	.06	5.9
JAN									
18...	16	151	--	2.5	--	.60	3.1	.06	3.0
MAR									
24...	12	137	E.010	1.8	.120	E.59	--	.06	2.8
MAY									
25...	11	124	.020	1.2	.080	E.80	--	.18	8.6

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY								
25...	1330	40	1	<10	30	1	10	13

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
25...	870	5	60	<.1	6	<1	30	5

01401440 MILLSTONE RIVER AT KINGSTON, NJ

LOCATION.--Lat 40°22'24", long 74°37'15", Middlesex County, Hydrologic Unit 02030105, at bridge on Lincoln Highway in Kingston, 0.2 mi (0.4 km) downstream from the outflow of Carnegie Lake, and 3.0 mi (4.9 km) northwest of Plainsboro.

DRAINAGE AREA.--172 mi² (445 km²), includes 8.0 mi² (20.7 km²) which drains into Delaware and Raritan Canal.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 01...	1040	175	7.5	16.5	9.3	5.2	40	50	55
JAN 18...	1300	195	7.0	.5	12.8	1.8	70	22	53
MAR 24...	1330	189	8.2	10.5	11.6	--	<20	<20	53
MAY 25...	1030	202	7.6	18.0	8.2	1.7	130	33	60
JUL 08...	1130	152	8.0	25.5	8.9	5.7	540	27	43
AUG 19...	1130	192	7.5	26.5	11.8	2.6	500	<200	55
SEP 27...	1115	193	7.7	19.5	9.2	2.6	<200	500	54

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 01...	13	5.5	15	3.0	26	--	20	39	.3
JAN 18...	12	5.7	12	3.1	27	--	27	16	.2
MAR 24...	12	5.7	12	2.3	23	--	28	18	.1
MAY 25...	14	6.0	12	2.4	34	--	25	18	.2
JUL 08...	10	4.4	8.5	2.3	26	--	17	12	.2
AUG 19...	13	5.4	13	2.8	36	--	19	18	.2
SEP 27...	13	5.1	14	3.4	32	.6	19	19	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 01...	.1	102	--	.35	--	.40	.75	.15	6.4
JAN 18...	12	122	--	2.6	--	1.20	3.8	.45	4.1
MAR 24...	8.4	113	E.020	1.7	<.050	E1.10	--	.22	3.3
MAY 25...	4.8	128	.040	.80	.250	E.90	--	.28	3.4
JUL 08...	7.2	89	.020	.80	E.070	1.10	1.9	.40	5.3
AUG 19...	2.7	101	.020	.50	.060	1.20	1.7	.25	6.9
SEP 27...	.1	108	.030	1.2	E.050	1.00	2.2	.18	4.1

01401440 MILLSTONE RIVER AT KINGSTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY 25...	1030	--	--	--	10	2	--	<10	20	1	--
SEP 27...	1115	380	.1	3.2	10	2	<1	<10	50	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY 25...	10	--	--	8	--	1100	--	8	--	150	--
SEP 27...	10	2	<10	8	6	530	1300	7	20	30	250

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 25...	<.1	--	3	--	<1	--	20	--	1	--	--
SEP 27...	<.1	<.01	3	<10	<1	<1	10	66	<1	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 25...	--	--	--	--	--	--	--	--	--	--	--
SEP 27...	<.1	1.0	1.8	1.0	1.1	<.1	.2	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 25...	--	--	--	--	--	--	--	--	--	--	--
SEP 27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01401600 BEDEN BROOK NEAR ROCKY HILL, NJ

LOCATION.--Lat 40°24'52", long 74°39'02", Somerset County, Hydrologic Unit 02030105, at bridge on U.S. Route 206 at State Route 533, 0.7 mi (1.1 km) upstream from Pike Run, 1.2 mi (1.9 km) northwest of Rocky Hill, and 4.6 mi (7.4 km) north of Princeton.

DRAINAGE AREA.--27.6 mi² (71.5 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 14...	1245	--	7.8	7.0	10.9	--	70	110	145
JAN 20...	1100	190	7.3	.0	12.8	.5	23	22	68
APR 14...	1315	154	7.6	12.5	11.8	.4	4	5	50
MAY 26...	1015	183	7.6	16.0	9.4	<2.2	540	170	61
JUL 13...	1130	217	7.8	25.5	8.2	1.5	3300	800	73
AUG 23...	1130	326	8.5	19.5	15.3	1.4	1600	230	101
SEP 21...	1045	341	8.1	15.0	10.3	1.5	490	920	113

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 14...	35	14	28	3.7	85	--	69	36	<.1
JAN 20...	16	6.8	10	1.5	33	--	29	11	<.1
APR 14...	11	5.4	8.4	1.1	22	--	24	13	.1
MAY 26...	14	6.4	12	1.5	36	<.5	28	11	<.1
JUL 13...	17	7.3	11	1.7	49	--	26	11	.1
AUG 23...	24	9.9	20	3.0	60	--	32	28	.1
SEP 21...	27	11	25	3.4	71	<.5	38	27	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 14...	1.8	270	--	.39	--	E.20	--	1.30	3.2
JAN 20...	14	125	--	2.7	--	.13	2.8	.28	1.4
APR 14...	13	93	<.010	1.8	E.390	E.35	--	.15	2.2
MAY 26...	14	124	.030	.90	.060	E.40	--	.21	3.2
JUL 13...	8.8	147	.030	1.2	.070	.45	1.7	.21	2.8
AUG 23...	5.7	195	.010	1.5	.090	.44	1.9	.09	3.3
SEP 21...	2.9	205	.010	.90	.070	.75	1.7	1.70	3.8

01401600 BEDEN BROOK NEAR ROCKY HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 14...	1245	1050	<.1	3.8	--	--	0	--	--	--	<1
MAY 26...	1015	--	--	--	40	1	--	<10	50	1	--
SEP 21...	1045	3300	.2	6.2	30	3	<1	<10	90	<1	1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 14...	--	<1	<10	--	3	--	300	--	10	--	530
MAY 26...	10	--	--	6	--	340	--	5	--	30	--
SEP 21...	10	4	10	12	10	130	3400	7	40	30	630

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	--	<.01	--	<10	--	<1	--	23	--	68	<1.0
MAY 26...	<.1	--	3	--	<1	--	200	--	13	--	--
SEP 21...	<.1	<.01	3	<10	<1	<1	10	34	1	77	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
MAY 26...	--	--	--	--	--	--	--	--	--	--	--
SEP 21...	<.1	<1.0	4.0	4.5	.6	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
MAY 26...	--	--	--	--	--	--	--	--	--	--	--
SEP 21...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01401650 PIKE RUN AT BELLE MEAD, NJ

LOCATION.--Lat 40°28'05", long 74°38'57", Somerset County, Hydrologic Unit 02030105, on right bank 20 ft (6.1 m) upstream of Township Line Road, 0.7 mi (1.1 km) east of Belle Mead, 0.8 mi (1.3 km) upstream of Cruser Brook, and 1.0 mi (1.6 km) downstream of bridge on U.S. Route 206.

DRAINAGE AREA.--5.36 mi² (13.88 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder and parking bumper control. Datum of gage is 58.85 ft (17.94 m), revised, National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 818 ft³/s (23.2 m³/s) Jan. 4, 1982, gage height, 8.59 ft (2.618 m); no flow many days in August and September 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, 13.5 ft (4.11 m), from floodmark, present datum, Aug. 28, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s), revised, and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1140	*818	23.2	8.59	2.618	Feb. 3	0425	529	15.0	7.76	2.365
Feb. 1	0655	425	12.0	6.15	1.875	Apr. 3	2205	515	14.6	6.68	2.036

Minimum discharge, 0.05 ft³/s (0.001 m³/s) Oct. 4-7, 9-18, gage height, 2.65 ft (0.808 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	1.6	4.1	33	209	1.8	10	7.8	5.1	4.3	1.0	.26
2	4.3	1.4	50	15	94	2.3	4.5	6.6	9.0	2.9	.88	1.3
3	.16	1.4	9.4	8.9	236	3.2	100	5.7	4.4	18	.79	3.9
4	.06	1.2	6.6	358	6.9	1.9	63	5.2	3.3	13	.74	.60
5	.05	1.0	4.8	38	14	8.6	13	4.4	3.2	5.3	1.2	.26
6	.05	8.9	3.4	22	10	6.0	12	3.3	4.1	3.9	1.1	.24
7	.37	4.9	2.3	21	13	57	13	2.8	4.8	2.9	.74	.24
8	.10	3.1	2.9	17	12	25	16	2.6	3.4	2.6	.71	.23
9	.06	2.3	3.7	9.5	5.6	10	15	2.4	2.3	1.8	.83	.23
10	.05	1.7	1.6	12	6.0	8.6	22	1.6	1.6	1.2	.97	.23
11	.05	1.4	1.0	6.1	9.7	9.3	19	1.4	1.4	1.1	.63	.22
12	.05	1.2	.86	5.6	6.8	9.4	14	.78	1.1	5.9	2.1	.22
13	.05	1.0	.56	5.6	1.8	8.3	11	1.2	60	3.0	.84	.24
14	.05	.82	.75	7.0	2.8	7.7	10	1.2	46	1.5	.48	.24
15	.05	.96	59	5.3	1.7	6.2	8.5	1.1	9.4	1.2	.30	.24
16	.05	7.0	59	6.2	5.2	5.9	8.1	1.1	6.5	.95	.29	.26
17	.05	3.8	15	5.4	4.8	9.5	8.0	1.0	48	.79	.30	.24
18	.41	3.0	11	4.7	2.8	7.3	36	.94	8.4	.75	.27	.24
19	7.6	2.2	8.0	3.9	12	5.9	12	1.0	5.9	.70	.25	.23
20	.65	6.0	9.2	2.6	13	5.0	11	1.3	4.9	.71	.24	.95
21	.38	6.9	4.0	2.1	17	5.1	12	1.2	3.4	.92	.25	1.8
22	.28	3.8	3.4	1.7	13	4.6	9.9	.94	2.7	.54	.24	2.3
23	1.9	2.6	19	9.8	7.8	3.1	7.5	1.6	3.0	.98	.28	16
24	9.5	1.9	13	44	6.6	2.7	8.3	3.2	2.2	.73	.26	1.4
25	3.0	1.4	9.1	32	4.7	2.6	7.9	24	2.1	.34	4.5	.68
26	8.7	1.1	6.0	8.8	7.0	3.5	27	5.4	1.6	.39	1.0	.38
27	19	.94	7.6	5.1	3.0	3.0	32	2.8	1.2	.42	.32	9.3
28	29	.83	10	4.7	2.1	1.8	55	2.3	.99	34	.29	2.2
29	5.2	.60	8.4	4.8	---	1.3	13	39	33	4.0	.23	.93
30	3.1	.45	5.3	4.8	---	1.4	9.3	8.7	11	1.6	.23	.72
31	2.3	---	4.1	7.9	---	5.2	---	6.1	---	1.3	.22	---
TOTAL	96.63	75.40	343.07	712.5	728.3	233.2	588.0	148.66	293.99	117.72	22.48	46.28
MEAN	3.12	2.51	11.1	23.0	26.0	7.52	19.6	4.80	9.80	3.80	.73	1.54
MAX	29	8.9	59	358	236	57	100	39	60	34	4.5	16
MIN	.05	.45	.56	1.7	1.7	1.3	4.5	.78	.99	.34	.22	.22
CFSM	.58	.47	2.07	4.29	4.85	1.40	3.66	.90	1.83	.71	.14	.29
IN.	.67	.52	2.38	4.94	5.05	1.62	4.08	1.03	2.04	.82	.16	.32

CAL YR 1981 TOTAL 1696.75 MEAN 4.65 MAX 99 MIN .01 CFSM .87 IN 11.77
WTR YR 1982 TOTAL 3406.23 MEAN 9.33 MAX 358 MIN .05 CFSM 1.74 IN 23.64

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ

LOCATION.--Lat 40°28'30", long 74°34'34", Somerset County, Hydrologic Unit 02030105, on left bank 30 ft (9 m) downstream from highway bridge at Blackwells Mills, and 0.3 mi (0.5 km) downstream from Six Mile Run.

DRAINAGE AREA.--258 mi² (668 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to December 1904 (gage heights only), August 1921 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at Millstone" 1903-04.

REVISED RECORDS.--WSP 1552: 1924-25(M), 1926.

GAGE.--Water-stage recorder. Concrete control since Nov. 18, 1933. Datum of gage is 26.97 ft (8.220 m) National Geodetic Vertical Datum of 1929. June 27, 1903 to Dec. 31, 1904, nonrecording gage at bridge 2.0 mi (3.2 km) downstream at Millstone at different datum. Aug. 4, 1921 to Aug. 16, 1928, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good except those above 1,200 ft³/s (34.0 m³/s), which are poor. Inflow from and losses to Delaware and Raritan Canal above station. Flow slightly regulated by Carnegie Lake, capacity, 310,000,000 gal (1,173,000 m³) and several smaller reservoirs, combined capacity, 49,800,000 gal (188,500 m³).

AVERAGE DISCHARGE.--61 years, 373 ft³/s (10.56 m³/s), 19.63 in/yr (499 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,200 ft³/s (629 m³/s) Aug. 28, 1971, gage height, 18.68 ft (5.694 m) from high-water mark; minimum, about 5 ft³/s (0.14 m³/s) Sept. 16, 1923.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 5	0330	*6740	191	11.87	3.618
Feb. 4	0315	4130	117	9.69	2.954

Minimum discharge, 21 ft³/s (0.59 m³/s) Oct. 1, gage height, 1.31 ft (0.399 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	105	93	562	1710	145	261	423	259	266	87	46
2	52	92	938	923	1470	145	207	310	230	183	75	57
3	55	82	594	481	2930	153	453	250	161	278	64	102
4	46	75	344	2770	3680	142	2540	218	114	909	57	87
5	41	69	275	5310	2190	225	1590	188	96	364	54	73
6	39	129	216	2350	871	262	753	162	100	252	60	62
7	42	154	179	964	538	621	647	141	101	207	55	55
8	42	123	175	591	375	1570	561	123	131	162	49	49
9	37	104	205	426	336	831	656	110	143	124	71	44
10	34	97	176	325	347	550	668	97	128	97	157	41
11	32	91	151	254	279	415	945	84	113	75	76	38
12	33	82	137	217	231	382	745	74	86	105	68	35
13	33	77	124	186	209	344	537	67	260	104	80	34
14	34	72	116	190	183	310	428	61	1240	85	74	34
15	36	74	790	189	171	259	335	61	553	78	63	33
16	38	140	2020	178	201	229	283	80	424	72	54	33
17	37	157	1620	165	235	284	256	81	1470	78	47	33
18	40	174	877	160	205	297	870	76	786	59	42	32
19	66	165	555	159	281	254	600	72	449	52	40	32
20	54	174	360	158	470	223	433	81	341	56	36	35
21	40	242	272	155	459	202	315	175	257	110	34	56
22	33	205	250	151	499	187	249	109	180	125	32	62
23	35	169	371	183	370	166	205	84	156	185	34	170
24	77	144	653	407	305	149	176	102	131	155	36	121
25	80	122	425	354	250	136	153	167	112	102	109	86
26	104	108	336	299	193	139	346	147	95	66	126	65
27	149	100	303	245	167	131	1380	125	77	48	96	135
28	386	94	351	206	155	115	1610	90	65	238	74	128
29	240	87	315	183	---	105	1290	423	401	126	61	95
30	158	81	268	167	---	100	633	479	693	84	52	73
31	123	---	227	193	---	116	---	404	---	86	46	---
TOTAL	2240	3588	13716	19101	19310	9187	20125	5064	9352	4931	2008	1946
MEAN	72.3	120	442	616	690	296	671	163	312	159	64.8	64.9
MAX	386	242	2020	5310	3680	1570	2540	479	1470	909	157	170
MIN	24	69	93	151	155	100	153	61	65	48	32	32
CFSM	.28	.47	1.71	2.39	2.67	1.15	2.60	.63	1.21	.62	.25	.25
IN.	.32	.52	1.98	2.75	2.78	1.32	2.90	.73	1.35	.71	.29	.28

CAL YR 1981 TOTAL 74044 MEAN 203 MAX 2050 MIN 12 CFSM .79 IN 10.68
WTR YR 1982 TOTAL 110568 MEAN 303 MAX 5310 MIN 24 CFSM 1.17 IN 15.94

01402540 MILLSTONE RIVER AT WESTON, NJ

LOCATION.--Lat 40°31'47", long 74°35'19", Somerset County, Hydrologic Unit 02030105, at bridge on Wilhouski Street in Weston, 50 ft (15 m) upstream from Royce Brook, 0.8 mi (1.2 km) southwest of Alma White College, and 1.9 mi (3.0 km) north of Millstone.

DRAINAGE AREA.--271 mi² (702 km²), includes approximately 13 mi³ (34 km³) which drains into Delaware and Raritan canal.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 15...	1330	48	347	7.3	10.0	6.4	2.6	8	2	100
FEB 08...	1330	400	156	7.2	1.0	13.0	1.4	80	80	48
MAR 25...	1315	152	238	7.8	8.5	12.5	2.7	50	8	72
JUN 16...	1200	450	203	7.3	19.5	7.3	2.1	490	280	61
JUL 21...	1130	116	265	7.8	26.0	7.6	4.3	350	79	83
SEP 09...	1345	42	264	7.7	20.5	10.6	3.0	33	130	79
22...	1345	62	350	7.3	17.5	6.8	1.9	220	140	110

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 15...	28	7.9	25	4.5	47	<.1	47	32	.3
FEB 08...	12	4.4	12	2.1	16	--	24	14	.1
MAR 25...	18	6.6	15	2.0	31	--	34	20	.1
JUN 16...	15	5.8	12	2.2	33	--	24	14	.2
JUL 21...	22	6.9	16	2.9	50	--	32	17	.2
SEP 09...	20	7.0	18	3.6	46	--	32	22	.3
22...	31	7.8	24	4.9	58	<.5	40	33	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 15...	4.6	210	--	2.5	--	E.60	--	2.40	3.7
FEB 08...	11	93	--	2.0	--	.78	2.8	.44	4.7
MAR 25...	9.6	145	.010	2.6	.070	E.60	--	.55	2.8
JUN 16...	10	129	.010	2.2	.160	.55	2.7	.44	4.4
JUL 21...	10	193	.010	1.9	.110	1.50	3.4	.86	5.1
SEP 09...	2.1	133	.020	1.7	.270	1.10	2.8	.73	4.7
22...	5.3	211	.030	4.3	.050	.96	5.3	1.30	4.3

01402540 MILLSTONE RIVER AT WESTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT											
15...	1330	--	--	--	10	3	--	<10	110	<1	--
SEP											
22...	1345	840	1.3	2.8	20	2	<1	<10	120	<1	2

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT											
15...	20	--	--	6	--	450	--	3	--	130	--
SEP											
22...	10	2	10	7	4	370	2500	7	20	130	570

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
15...	<.1	--	5	--	<1	--	30	--	--	--	--
SEP											
22...	.6	<.01	4	<10	<1	<1	10	49	<1	2	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.1	<1.0	11	2.5	.6	<.1	.4	<.1	<.1	<.1	<.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01402600 ROYCE BROOK TRIBUTARY NEAR BELLE MEAD, NJ

LOCATION.--Lat 40°29'56", long 74°39'05", Somerset County, Hydrologic Unit 02030105, on right bank 25 ft (7.6 m) upstream from bridge on State Highway 514 (Amwell Road), 1,200 ft (370 m) upstream from mouth, and 2.0 mi (3.2 km) north of Belle Mead.

DRAINAGE AREA.--1.20 mi² (3.11 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to September 1974, January 1980 to current year.

REVISED RECORDS.--WRD NJ 1969: 1967, 1968.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 66.98 ft (20.4 m) National Geodetic Vertical Datum of 1929. Prior to September 1974 at same site at datum 0.79 ft (0.241 m) higher.

REMARKS.--Water-discharge records fair. Some regulation from storm-water detention basin 542 ft (165.2 m) upstream of gage since 1980.

AVERAGE DISCHARGE.--10 years (water years 1967-74, 1981-82), 2.31 ft³/s (0.065 m³/s), 26.15 in/yr (664 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft³/s (41.1 m³/s) Aug. 28, 1971, gage height, 7.80 ft (2.137 m) present datum, from high-water mark, from rating curve extended above 203 ft³/s (5.75 m³/s) on basis of slope-area measurement of peak flow; no flow on some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 125 ft³/s (3.54 m³/s), revised, and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 27	2205	177	5.01	4.00	1.219	Apr. 3	1905	133	3.77	3.62	1.103
Jan. 4	0935	*237	6.71	4.56	1.390	July 28	1010	130	3.68	3.59	1.094
Feb. 3	0210	136	3.85	3.64	1.109	Sept. 23	0415	134	3.79	3.63	1.106

No flow part or all of many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.52	4.9	10	23	.83	1.5	1.3	1.1	1.0	.31	.10
2	4.0	.48	17	3.8	15	.93	.85	.96	3.2	.68	.28	.68
3	.41	.36	2.4	1.9	49	1.1	23	.83	1.1	6.3	.24	4.7
4	.16	.33	1.3	94	11	.74	11	.74	.80	2.3	.19	.01
5	.18	.31	.90	3.0	9.3	3.2	2.6	.57	.77	1.0	9.0	.00
6	.53	3.3	.67	1.4	4.7	2.8	2.9	.52	.81	.71	.97	.00
7	1.4	.78	.55	1.3	2.5	15	2.8	.47	1.1	.58	.43	.00
8	.23	.55	1.1	1.1	1.9	8.5	3.6	.41	.65	.47	.33	.00
9	.13	.50	.70	.68	2.2	4.0	3.5	.39	.49	.37	1.2	.00
10	.06	.45	.46	.88	2.5	2.1	4.9	.29	.38	.30	.55	.00
11	.04	.38	.36	.49	2.3	2.6	4.2	.38	.35	.27	.29	.00
12	.01	.36	.32	.44	1.3	3.5	2.6	.32	.30	1.4	1.6	.00
13	.00	.31	.27	.46	1.1	1.8	1.9	.88	21	.34	.29	.00
14	.00	.30	.60	.51	1.0	1.5	1.5	.30	9.4	.26	.21	.00
15	.00	1.1	26	.44	1.3	1.2	1.1	.37	2.0	.23	.19	.00
16	.00	1.7	18	.47	1.5	1.2	.88	.24	1.7	.20	.19	.00
17	.00	.73	5.2	.41	2.0	2.1	1.8	.22	7.9	.20	.17	.00
18	3.3	.65	3.0	.37	1.4	1.8	6.9	.21	1.5	.18	.14	.00
19	2.0	.49	1.9	.28	2.1	1.2	1.6	.33	1.1	.16	.14	.00
20	.35	1.8	1.3	.18	5.3	.97	1.1	2.6	.82	.27	.17	.37
21	.22	.97	1.0	.13	9.0	1.1	.94	1.5	.64	.18	.16	.04
22	.18	.65	.97	.12	3.0	.92	.78	.86	.50	.13	.12	.46
23	1.9	.55	6.4	5.4	2.5	.75	.63	.94	.75	.12	.14	16
24	1.7	.48	3.0	13	1.8	.63	.58	.79	.60	.13	.12	.14
25	.50	.45	2.3	10	1.4	.65	.48	6.6	.56	.13	7.4	.03
26	5.0	.37	1.5	2.5	1.1	.89	7.0	1.3	.29	.12	.02	.01
27	14	.40	2.1	2.0	.80	.63	7.5	.77	.29	.11	.00	11
28	7.0	.39	2.1	1.8	.96	.67	13	1.1	.32	21	.00	.23
29	1.5	.31	1.7	1.6	---	.88	2.8	16	17	1.2	.00	.11
30	.86	.24	1.2	1.5	---	.89	1.6	1.9	2.5	.34	.00	.05
31	.60	---	.48	6.3	---	1.8	---	1.5	---	.60	.00	---
TOTAL	44.32	20.18	111.04	167.35	160.86	65.54	115.84	45.75	79.14	41.28	24.86	33.93
MEAN	1.43	.67	3.58	5.40	5.75	2.11	3.86	1.48	2.64	1.33	.80	1.13
MAX	14	3.3	26	94	49	15	23	16	21	21	9.0	16
MIN	.00	.24	.27	.12	.80	.63	.48	.21	.29	.11	.00	.00
CFSM	1.19	.56	2.99	4.50	4.79	1.76	3.22	1.23	2.20	1.11	.67	.94
IN.	1.37	.63	3.44	5.19	4.99	2.03	3.59	1.42	2.45	1.28	.77	1.05

CAL YR 1981 TOTAL 652.27 MEAN 1.79 MAX 98 MIN .00 CFSM 1.49 IN 20.20
WTR YR 1982 TOTAL 911.52 MEAN 2.50 MAX 94 MIN .00 CFSM 2.08 IN 28.21

01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, NJ

LOCATION.--Lat 40°33'05", long 74°32'54", Somerset County, Hydrologic Unit 02030105, on right bank 1,000 ft (305 m) downstream from Calco Dam and Cuckold Brook, 1,400 ft (427 m) upstream of bridge on Interstate 287, 1.2 mi (1.9 km) downstream from Millstone River, and 1.2 mi (1.9 km) southwest of Bound Brook.

DRAINAGE AREA.--785 mi² (2.033 km²), includes 11 mi² (28 km²) which drains into the Delaware and Raritan Canal.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1903 to March 1909, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1966 published as "Raritan River at Bound Brook" (station 01403000).

REVISED RECORDS.--WSP 1552: 1903-07, 1946(M), 1949, 1952(P).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Sept. 12, 1903 to Mar. 31, 1909, nonrecording gages at highway bridge, 1.2 mi (1.9 km) downstream at different datum. October 1944 to Sept. 30, 1966, water-stage recorder and concrete control at site 1,120 ft (341 m) upstream at datum 18.06 ft (5.505 m) higher.

REMARKS.--Water-discharge records good. Water diverted 1.2 mi (1.9 km) above station by Elizabethtown Water Co. for municipal supply (see Raritan River Basin, diversions). Flow regulated by Spruce Run and Round Valley Reservoirs (see Raritan River Basin, reservoirs in). Diversions to and releases from Round Valley Reservoir (see Raritan River Basin, diversions and station 01399690). Slight diurnal fluctuations at low flow.

AVERAGE DISCHARGE.--43 years, (water years 1904-08, 1945-82), 1,274 ft³/s (36.08 m³/s), adjusted for diversion by Elizabethtown Water Co. since 1944, and change in contents in Spruce Run Reservoir since 1964 and Round Valley Reservoir since 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,100 ft³/s (1.310 m³/s) Aug. 28, 1971, elevation, 37.47 ft (11.421 m), from floodmark; minimum daily, 37 ft³/s (1.05 m³/s) Sept. 6, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,000 ft³/s (340 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Elevation (ft)	Elevation (m)
Jan. 5	0145	*22900	649	30.03	9.153
Feb. 4	0230	16800	476	27.70	8.443

Minimum discharge, 80 ft³/s (2.27 m³/s) Oct. 9, elevation, 16.39 ft (4.996 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	290	183	2050	3670	622	1010	1900	1130	941	187	174
2	390	219	3710	3130	3730	620	755	1520	1770	574	146	202
3	259	172	1860	1500	10100	516	2640	1270	1130	539	156	413
4	131	139	958	10300	13400	488	8480	1070	734	1770	146	235
5	127	134	736	15400	5640	700	3640	885	605	848	175	218
6	136	359	569	5400	2810	751	2480	778	609	555	171	168
7	167	384	424	2850	1880	4070	2270	703	667	432	151	137
8	144	227	418	1900	1400	3030	1940	653	627	360	144	162
9	110	157	619	1400	1300	1860	2080	618	509	292	486	148
10	113	154	448	948	1270	1430	2070	572	422	246	930	153
11	155	163	328	1500	1030	1330	2990	482	359	324	414	148
12	146	145	306	1060	860	1380	2610	411	356	300	267	155
13	160	117	251	777	823	1340	2080	409	1100	242	217	134
14	156	117	218	812	723	1200	1790	380	1260	161	177	138
15	152	151	2200	819	705	1020	1380	283	2040	209	183	182
16	154	329	5780	600	873	907	1210	282	1310	153	158	177
17	162	338	3250	470	1050	1200	1050	285	4270	157	147	142
18	174	263	1820	468	922	1010	3900	258	2450	133	153	133
19	277	230	1250	503	915	888	1870	238	1500	138	162	133
20	254	275	777	581	1520	942	1440	265	1220	171	182	154
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1981 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible]
WTR YR 1982 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible]

01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ

LOCATION.--Lat 40°36'44", long 74°35'28", Somerset County, Hydrologic Unit 02030105, on left bank 150 ft (45.7 m) upstream from bridge on Crim Road, 1.4 mi (2.3 km) northwest of Martinsville, and 1.8 mi (2.9 km) upstream from confluence with East Branch Middle Brook.

DRAINAGE AREA.--1.99 mi² (5.15 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 240.48 ft (73.30 m) National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Water-discharge records fair.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 816 ft³/s (23.1 m³/s) May 11, 1981, gage height, 5.60 ft (1.707 m); no flow Sept. 19-30, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) revised, and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage heigh (ft)	Gage heigh (m
Oct. 27	2250	257	7.28	4.21	1.23
Jan. 4	0945	*649	18.4	5.26	1.63
Apr. 3	1845	310	8.78	4.44	1.33

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 27	2250	218	6.17	4.13	1.259
July 28	1535	205	5.81	4.08	1.244

Minimum discharge, 0.05 ft³/s (0.001 m³/s) Aug. 21-Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	.57	12	27	21	.90	[illegible]	2.6	[illegible]	.51	.24	[illegible]
2	3.1	.60	35	3.9	3.	1.1	1.5	2.2	5.7	[illegible]	.24	[illegible]
3	.34	.60	2.4	1.9	76	.92	85	[illegible]	[illegible]	1.0	.26	[illegible]
4	.31	.60	1.4	129	16	.72	13	1.7	.63	[illegible]	[illegible]	[illegible]
5	.31	.64	1.1	5.9	4.	[illegible]	[illegible]	[illegible]	[illegible]	.34	1.6	[illegible]
6	.90	5.7	.99	3.0	3.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	.71	1.1	.92	2.4	1.	21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	.82	.74	2.8	1.4	1.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	.82	.67	1.6	1.1	1.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	.82	.65	1.0	.85	1.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	.83	.62	.82	1.2 *	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	.83	.54	.76	1.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	.85	.52	.65	1.4	[illegible]	[illegible]	[illegible]	[illegible]	23	[illegible]	[illegible]	[illegible]
14	.51	.52	.81	1.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	.55	.75	46	1.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	.59	1.5	21	1.2	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	.83	3.9	1.7	20	[illegible]	[illegible]	[illegible]	15	[illegible]	[illegible]	[illegible]
18	1.4	.71	2.5	2.6	[illegible]	[illegible]	18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	.70	.60	1.5	1.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	.53	1.6	1.1	.79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	.82	1.1	.82	.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	.99	.76	1.0	.39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	2.6	.69	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	2.3	.64	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	.79	.60	2.2	2.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	1.5	1.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	17	.62	[illegible]	1.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	1.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	.52	[illegible]	.77	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	.71	.52	1.3	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	.60	---	1.1	1.2	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	17	5.7	46	129	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	.31	.52	.65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1981 TOTAL 883.73 MEAN 2.42 MAX [illegible] MIN .00 CFSM 1.22 IN [illegible]
WTR YR 1982 TOTAL 1158.72 MEAN 3.17 MAX [illegible] MIN .05 CFSM 1.59 IN [illegible]

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ
(National stream-quality accounting network and Pesticide program station)

LOCATION.--Lat 40°33'34", long 74°31'41", Somerset County, Hydrologic Unit 02030105, at Queens Bridge on Main street in Bound Brook, 1.7 mi (2.7 km) upstream of Fieldsville Dam.

DRAINAGE AREA.--804 mi² (2,082 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to 1969, 1971 to 1973, 1978 and November 1981 to present. Published as "at Bound Brook" (sta. 01403000) 1964-66, and as "below Calco Dam at Bound Brook (sta. 01403060) 1967-69.

REMARKS.--Instantaneous discharges are determined at Raritan River below Calco Dam at Bound Brook (sta. 01403060).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV										
23...	1100	215	330	7.3	6.0	3.8	12.0	--	--	--
JAN										
21...	1030	448	330	7.3	.5	2.0	17.6	1.2	K42	K53
MAR										
09...	1100	1900	222	7.1	2.5	22	12.7	2.3	K210	>2000
MAY										
27...	1100	477	308	7.6	20.0	5.4	8.2	>1.3	830	1400
JUL										
07...	1100	426	283	6.8	22.0	5.7	8.0	3.3	450	580
SEP										
10...	1100	138	390	7.2	20.0	1.3	8.2	1.1	>2000	340

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV										
23...	87	22	7.7	26	3.2	56	40	36	.2	9.6
JAN										
21...	85	22	7.4	22	2.0	47	40	34	<.1	12
MAR										
09...	59	15	5.3	12	1.9	24	27	25	<.1	9.3
MAY										
27...	82	22	6.6	24	2.3	42	34	18	.2	12
JUL										
07...	77	20	6.5	23	2.2	39	33	29	.2	11
SEP										
10...	105	26	8.0	31	2.5	55	43	44	.2	5.0

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
NOV										
23...	197	6	3.2	100	2.8	1.30	1.40	.260	.250	.220
JAN										
21...	191	1	1.2	100	2.5	1.30	1.50	.330	.290	.200
MAR										
09...	147	33	169	100	2.0	.210	1.40	.210	.190	.080
MAY										
27...	200	10	12	100	2.0	.480	1.40	.390	.300	.360
JUL										
07...	172	16	18	100	2.2	.100	.80	.300	.210	.200
SEP										
10...	196	9	3.4	100	.89	.030	1.30	.360	.260	.210

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
NOV 23...	1100	5	5	100	50	<1	<1	20	10	1	1
JAN 21...	1030	1	1	100	52	1	1	20	20	<1	<1
MAR 09...	1100	--	--	--	--	--	--	--	--	--	--
MAY 27...	1100	1	1	100	60	1	<1	10	10	6	6
SEP 10...	1100	2	1	100	58	1	<1	10	<10	1	1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)
NOV 23...	9	8	390	53	4	<1	50	40	<.1	.1	6
JAN 21...	8	3	160	42	6	3	60	60	<.1	.2	2
MAR 09...	--	--	--	--	--	--	--	--	--	--	--
MAY 27...	9	5	570	30	6	4	70	43	.1	<.1	8
SEP 10...	8	6	180	45	5	<1	60	34	.2	.2	1

DATE	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 23...	3	<1	<1	<1	<1	40	10	--	5	--	<1.0
JAN 21...	<1	<1	<1	<1	<1	20	20	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	<.10	--	<.10	--
MAY 27...	7	<1	<1	<1	<1	20	8	--	<1	--	<1.0
SEP 10...	2	<1	<1	<1	<1	20	5	--	--	--	--

DATE	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL (UG/L)
NOV 23...	--	<.1	--	2.0	--	.2	--	.4	--	.7	--
JAN 21...	--	--	--	--	--	--	--	--	--	--	--
MAR 09...	<.01	--	<.10	--	<.01	--	<.01	--	<.01	--	<.01
MAY 27...	--	<.1	--	2.0	--	1.0	--	.3	--	<.1	--
SEP 10...	--	--	--	--	--	--	--	--	--	--	--

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)
NOV										
23...	--	<0.1	--	<0.1	--	<0.1	--	--	<0.1	--
JAN										
21...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	<0.01	--	<0.01	--	<0.01	--	<0.01	<0.01	--	<0.01
MAY										
27...	--	<0.1	--	<0.1	--	<0.1	--	--	<0.1	--
SEP										
10...	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METHOXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV										
23...	<0.1	--	<0.1	--	--	<0.1	--	--	--	<0.1
JAN										
21...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	--	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	--
MAY										
27...	<0.1	--	<0.1	--	--	<0.1	--	--	--	<0.1
SEP										
10...	--	--	--	--	--	--	--	--	--	--

DATE	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIAL (UG/KG)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV										
23...	--	--	<1.0	--	<1.0	--	--	--	--	--
JAN										
21...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	<0.01	<0.01	--	<1	--	<0.01	<.01	<0.01	<0.01	<0.01
MAY										
27...	--	--	<1.00	--	<10	--	--	--	--	--
SEP										
10...	--	--	--	--	--	--	--	--	--	--

01403400 GREEN BROOK AT SEELEY MILLS, NJ

LOCATION.--Lat 40°39'53", long 74°24'10", Somerset County, Hydrologic Unit 02030105, on right bank at Seeley Mills, 250 ft (76.2 m) downstream from Blue Brook, 300 ft (91.4 m) downstream from bridge on Diamond Hill Road, and 0.5 mi (0.8 km) northwest of Scotch Plains.

DRAINAGE AREA.--6.23 mi^2 (16.14 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-64, 1969: annual maximum, water years 1969-79. June 1979 to current year. Fragmentary records 1944-53 in the files of the Geological Survey. Crest-stage data 1927-38, 1958-68 in files of Union County Park Commission.

REVISED RECORDS.--WDR-NJ 81-1: 1979(M).

GAGE.--Water-stage recorder. Datum of gage is 184.44 ft (56.217 m) National Geodetic Vertical Datum of 1929. From 1944 to 1953, water-stage recorder and masonry dam about 400 ft (122 m) downstream above lower Seeley Mills dam at different datum. From July 1969 to May 1979, crest-stage gage about 450 ft (137 m) downstream below lower Seeley Mills dam (washed out May 29, 1968) at different datum.

REMARKS.--Water-discharge records fair.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s (177 m^3/s) Aug. 2, 1973, gage height, 16.1 ft (4.91 m), on basis of slope-area measurement of peak flow, site and datum then in use; no flow part or all of some days in September 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1938 reached an elevation of 196.5 ft (59.893 m) New Jersey Geological Survey datum, above lower Seeley Mills dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	Unknown	*798	22.6	4.32	1.317	Apr. 3	1840	353	10.0	3.06	0.933
Feb. 3	0220	279	7.90	2.87	0.875	July 28	1010	433	12.3	3.30	1.006

No flow part of many days in October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.94	1.0	7.9	38	36	4.9	9.9	15	4.4	4.0	2.6	1.9
2	5.6	.99	51	13	11	5.1	6.4	13	5.4	3.3	2.7	2.9
3	.17	1.0	11	8.3	140	4.8	72	11	3.5	5.5	3.1	5.5
4	.03	1.0	4.6	221	53	4.9	50	10	3.2	3.8	3.2	.86
5	.03	1.0	3.5	60	24	7.7	19	8.8	4.3	3.1	4.1	.65
6	1.8	8.4	2.2	17	17	6.0	18	7.4	5.2	2.7	3.2	.69
7	1.8	3.3	1.6	13	13	32	14	6.7	10	2.7	3.1	.70
8	.11	2.3	5.2	10	10	17	14	5.8	4.4	2.8	3.1	.75
9	.05	1.6	4.0	11	11	10	14	5.8	3.4	2.7	6.9	.76
10	.12	1.4	2.5	7.4	9.7	8.4	20	5.3	2.7	2.1	3.0	.83
11	.12	1.4	1.9	10	7.7	9.5	25	4.7	1.9	1.7	2.9	.70
12	.13	1.1	1.2	8.8	6.7	10	20	4.6	1.9	1.8	4.0	.73
13	.22	1.0	1.0	8.8	6.9	9.8	16	4.5	49	1.5	2.3	.73
14	.20	1.0	2.2	10	6.0	8.9	13	4.2	41	1.1	2.1	.87
15	.20	1.8	34	10	6.3	7.8	10	3.9	12	1.0	2.0	.80
16	.28	3.1	45	10	8.2	7.6	9.2	3.6	13	.96	1.9	.94
17	.55	2.1	17	9.7	6.6	10	9.7	3.5	51	1.0	1.9	.77
18	3.8	2.7	8.3	9.2	5.5	8.5	34	3.4	12	1.2	1.6	.50
19	3.1	1.5	7.9	7.0	10	7.5	13	3.3	8.3	1.2	1.3	.50
20	.47	4.8	6.6	4.6	9.8	7.0	10	3.2	6.2	1.5	1.6	3.3
21	.37	3.4	7.4	3.7	10	7.9	9.0	3.1	4.8	1.7	1.3	1.6
22	.21	2.6	6.3	3.2	9.1	7.0	7.4	3.0	4.3	.93	.93	2.5
23	6.4	2.1	11	13	7.4	6.1	6.6	5.2	5.3	.92	1.6	11
24	5.7	1.6	9.2	26	6.9	5.8	6.4	4.3	3.8	.96	1.2	1.2
25	1.9	1.4	6.6	20	5.7	5.8	6.5	9.5	3.6	.81	7.7	.70
26	7.5	1.5	6.3	15	5.2	6.6	53	3.8	3.5	6.5	1.1	.71
27	9.5	1.8	7.4	9.2	5.1	5.3	51	3.2	3.5	1.6	.98	8.3
28	11	1.6	7.9	4.3	5.0	4.9	58	3.4	3.4	42	.65	1.8
29	3.2	1.3	6.3	4.1	---	4.7	24	35	27	5.6	.62	1.0
30	1.6	1.5	4.9	4.0	---	4.7	18	7.6	9.4	3.3	.72	1.2
31	1.3	---	4.6	6.5	---	10	---	6.0	---	3.0	1.0	---
TOTAL	68.40	61.29	296.5	595.8	452.8	256.2	637.1	211.8	311.4	112.98	74.40	55.39
MEAN	2.21	2.04	9.56	19.2	16.2	8.26	21.2	6.83	10.4	3.64	2.40	1.85
MAX	11	8.4	51	221	140	32	72	35	51	42	7.7	11
MIN	.03	.99	1.0	3.2	5.0	4.7	6.4	3.0	1.9	.81	.62	.50
CFSM	.36	.33	1.54	3.08	2.60	1.33	3.40	1.10	1.67	.58	.39	.30
IN.	.41	.37	1.77	3.56	2.70	1.53	3.80	1.26	1.86	.67	.44	.33

CAL YR 1981 TOTAL 2029.35 MEAN 5.56 MAX 106 MIN .00 CFSM .89 IN 12.12
WTR YR 1982 TOTAL 3134.06 MEAN 8.59 MAX 221 MIN .03 CFSM 1.38 IN 18.71

01403500 GREEN BROOK AT PLAINFIELD, NJ

LOCATION.--Lat 40°36'53", long 74°25'55", Union County, Hydrologic Unit 02030105, on left bank 20 ft (6 m) downstream from bridge on Sycamore Avenue in Plainfield, and 1.0 mi (1.6 km) upstream from Stony Brook.

DRAINAGE AREA.--9.75 mi² (25.25 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 921: 1938-40. WRD-NJ 1969: 1966-68. WRD-NJ 1973: 1968(M), 1969(M), 1971(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 70.37 ft (21.449 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those below 1.0 ft³/s (0.028 m³/s), which are fair and those from Oct. 1 to 22, and Dec. 1 to June 29, which are poor. Water diverted from Baltusrol well field by Commonwealth Water Co., and from wells in vicinity of Mountainside and Scotch Plains by Plainfield-Union Water Co., for municipal supply and from private and industrial wells in Plainfield and vicinity. Diurnal fluctuations at low flow caused by pumping from wells near brook in Plainfield. During extreme high stages there is some overflow above gage from Green Brook basin to adjacent Cedar Brook basin.

AVERAGE DISCHARGE.--44 years, 12.6 ft³/s (0.357 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,890 ft³/s (81.8 m³/s) July 23, 1938, gage height, 5.82 ft (1.774 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of contracted-opening measurement of peak flow (an unknown additional amount probably overflowed out of the basin); no flow part or all of some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft³/s (10.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1215	*703	19.9	3.21	0.978	July 28	1115	493	14.0	2.70	0.823
Apr. 3	1945	538	15.2	2.81	0.856						

No flow part of Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.4	22	48	10	5.3	15	17	6.4	5.6	2.1	1.9
2	16	1.3	82	15	17	5.4	7.3	15	9.0	4.0	1.7	5.7
3	.78	1.2	7.8	8.9	26	5.2	112	13	4.8	9.6	1.4	16
4	.16	1.1	4.6	298	75	7.2	84	12	3.8	5.8	1.3	1.2
5	.14	1.1	3.4	67	32	10	23	11	5.9	3.4	3.0	.61
6	4.3	16	2.5	27	22	7.4	23	9.2	7.8	3.0	2.7	.38
7	4.7	2.8	2.3	19	17	58	20	8.4	16	2.7	1.2	.28
8	.45	1.8	7.3	14	19	29	19	7.5	6.2	2.7	.87	.35
9	.15	1.5	4.3	18	14	13	18	7.0	4.4	2.7	14	.40
10	.07	1.4	3.3	11	12	11	23	6.3	3.4	2.3	2.6	.37
11	.11	1.2	2.7	18	15	12	30	5.5	3.1	2.3	2.9	.24
12	.05	1.2	2.1	19	17	13	24	5.3	2.7	2.5	6.8	.10
13	.10	1.0	1.6	36	7.8	12	18	5.4	82	2.3	1.8	.12
14	.09	.93	3.6	22	10	11	14	4.9	59	1.9	1.3	.15
15	.08	1.8	74	20	6.9	9.1	12	4.4	15	1.8	1.1	.24
16	.05	3.7	75	12	9.0	8.9	10	4.1	21	1.6	.96	.41
17	.06	2.3	14	5.6	7.7	13	13	4.1	77	1.4	.93	.27
18	7.9	3.0	9.5	16	6.2	9.8	57	3.7	16	1.3	1.1	.13
19	6.1	1.3	8.5	9.6	15	8.5	16	3.6	10	1.3	.70	.08
20	.70	7.7	8.7	6.0	12	7.5	13	3.8	8.1	5.3	.70	7.5
21	.32	2.8	9.1	4.6	12	9.3	11	3.9	6.3	2.3	.74	3.4
22	.17	1.7	6.8	3.4	11	7.7	9.5	3.1	5.3	1.2	.31	4.3
23	14	1.5	16	8.6	8.3	6.6	8.5	13	7.5	1.1	.39	26
24	7.9	1.5	11	11	7.7	6.1	8.2	7.5	9.9	1.1	.97	1.8
25	1.7	1.4	7.8	6.6	6.5	6.0	7.8	21	3.8	.62	25	.69
26	11	1.1	7.6	5.5	4.1	7.7	89	5.8	3.6	14	1.9	.36
27	10	1.3	9.4	4.8	9.0	5.7	80	4.2	3.4	3.4	.92	19
28	19	1.1	9.7	4.3	5.9	5.0	101	4.7	3.4	110	.74	2.2
29	3.0	.94	7.1	4.0	---	5.0	32	70	61	11	.32	.94
30	2.1	.99	5.9	3.7	---	5.0	22	11	15	3.5	.25	.59
31	1.7	---	5.6	5.0	---	17	---	9.5	---	2.8	.67	---
TOTAL	114.18	68.06	435.2	751.6	415.1	337.4	920.3	304.9	480.8	214.52	81.37	95.71
MEAN	3.68	2.27	14.0	24.2	14.8	10.9	30.7	9.84	16.0	6.92	2.62	3.19
MAX	19	16	82	298	75	58	112	70	82	110	25	26
MIN	.05	.93	1.6	3.4	4.1	5.0	7.3	3.1	2.7	.62	.25	.08

CAL YR 1981 TOTAL 2739.05 MEAN 7.50 MAX 141 MIN .00
WTR YR 1982 TOTAL 4219.14 MEAN 11.6 MAX 298 MIN .05

01403535 EAST BRANCH STONY BROOK AT BEST LAKE AT WATCHUNG, NJ

LOCATION.--Lat 40°38'25", long 74°26'52", Somerset County, Hydrologic Unit 02030105, 700 ft (213 m) upstream of dam on Best Lake in Watchung, 1,400 ft (427 m) upstream of mouth, and 2.5 mi (4.0 km) west of Plainfield railroad station.

DRAINAGE AREA.--1.57 mi² (4.07 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 193.87 ft (59.092 m), National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Water-discharge records fair. Records given herein represent flow over dam and leakage.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 244 ft³/s (6.91 m³/s) Jan. 4, 1982, gage height, 2.06 ft (0.628 m); no flow many days in 1980 and 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 3, 1973, reached a stage of 5.4 ft (1.65 m), present datum, from floodmarks, discharge, 2,840 ft³/s (80.4 m³/s) by computation of flow over dam, embankment and road.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.832 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1010	*244	6.91	2.06	0.628	Apr. 3	1830	132	3.74	1.77	0.539
Feb. 3	0240	102	2.89	1.68	0.512	July 28	1010	154	4.36	1.83	0.558

Minimum daily discharge, 0.13 ft³/s (0.004 m³/s) Sept. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	1.0	4.8	8.8	10	1.9	2.5	3.3	1.6	1.4	.57	.30
2	1.7	.94	17	4.5	3.7	2.0	1.6	3.0	1.8	1.1	.49	.48
3	.41	1.9	4.1	3.2	42	1.9	21	2.7	1.1	1.7	.41	1.3
4	.33	3.1	2.8	66	11	1.9	9.5	2.5	.94	1.3	.39	.43
5	.31	3.2	2.1	8.5	4.8	2.9	3.5	2.1	1.1	.94	.46	.31
6	.43	6.3	1.4	5.3	3.9	2.5	3.4	2.0	1.4	.81	.50	.36
7	.70	3.8	1.3	5.1	3.1	12	2.8	1.7	2.3	.78	.42	.33
8	.33	3.0	2.1	4.0	2.7	6.0	3.1	1.6	1.4	.76	.38	.30
9	.30	1.4	1.6	3.7	3.0	3.8	3.1	1.6	1.1	.69	1.3	.30
10	.33	1.2	1.2	2.5	2.7	3.3	4.6	1.5	.87	.59	.57	.31
11	.30	1.3	1.0	1.5	2.3	3.6	5.8	1.2	.80	.54	.43	.30
12	.30	1.1	.92	1.4	1.9	3.7	4.4	1.1	.69	.57	.76	.30
13	.34	.64	.84	1.3	1.9	2.7	3.5	1.1	15	.50	.43	.42
14	.33	.60	1.1	1.4	1.6	2.1	2.9	.99	9.6	.51	.37	.52
15	.46	.61	15	1.3	1.8	1.9	2.4	.90	3.1	.49	.36	.36
16	.60	1.2	14	1.3	2.4	1.8	2.3	.87	3.9	.57	.33	.40
17	.63	.91	4.4	1.2	2.0	2.5	2.5	.77	13	.36	.35	.23
18	1.6	1.3	3.4	1.1	1.6	2.3	8.3	.75	3.4	.36	.28	.13
19	1.4	.86	2.5	1.0	3.3	2.2	3.1	.74	2.6	.34	.24	.13
20	.54	2.3	1.9	.99	3.3	1.8	2.7	.68	2.0	.38	.24	.41
21	.47	1.7	1.6	.96	3.5	1.8	2.5	.62	1.5	.36	.22	.48
22	.57	.93	1.6	1.1	3.2	1.5	2.1	.59	1.3	.29	.22	.44
23	2.0	.83	4.5	2.7	2.7	1.4	2.0	1.4	1.5	.29	.22	2.4
24	2.1	.73	3.8	3.0	2.5	1.3	1.8	1.1	1.1	.30	.24	.48
25	.89	.69	2.9	2.3	2.0	1.2	1.6	2.6	.95	.32	1.6	.34
26	3.2	.62	2.3	1.1	1.8	1.4	13	.99	.87	.61	.41	.30
27	4.2	.64	3.0	.84	1.9	1.1	10	.78	.93	.70	.30	1.7
28	3.5	.61	3.1	.52	2.0	.97	12	.75	.82	15	.28	.54
29	1.2	.54	2.5	.44	---	.99	4.6	9.2	6.9	2.2	.24	.39
30	.91	.52	2.0	.52	---	.99	3.7	2.2	2.4	.75	.24	.36
31	.94	---	1.8	.84	---	2.5	---	2.2	---	.62	.24	---
TOTAL	31.63	44.47	112.56	138.41	128.6	77.95	146.3	53.53	85.97	36.13	13.49	15.05
MEAN	1.02	1.48	3.63	4.46	4.59	2.51	4.88	1.73	2.87	1.17	.44	.50
MAX	4.2	6.3	17	66	42	12	21	9.2	15	15	1.6	2.4
MIN	.30	.52	.84	.44	1.6	.97	1.6	.59	.69	.29	.22	.13
CFSM	.65	.94	2.31	2.84	2.92	1.60	3.11	1.10	1.83	.75	.28	.32
IN.	.75	1.05	2.67	3.28	3.05	1.85	3.46	1.27	2.04	.86	.32	.36

CAL YR 1981 TOTAL 643.37 MEAN 1.76 MAX 38 MIN .00 CFSM 1.12 IN 15.23
WTR YR 1982 TOTAL 884.09 MEAN 2.42 MAX 66 MIN .13 CFSM 1.54 IN 20.93

01403540 STONY BROOK AT WATCHUNG, NJ

LOCATION.--Lat 40°38'12", long 74°27'06", Somerset County, Hydrologic Unit 02030105, on right bank at Watchung Borough Administration Building, 150 ft (45.7 m) downstream from Watchung Avenue Bridge, and 2.9 mi (4.7 km) upstream from confluence with Green Brook.

DRAINAGE AREA.--5.51 mi^2 (14.27 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 172.24 ft (52.499 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Occasional some regulation from Watchung and Best Lakes directly upstream from station.

AVERAGE DISCHARGE.--8 years, 10.3 ft^3/s (0.292 m^3/s), 25.39 in/yr (645 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,420 ft^3/s (125 m^3/s) July 14, 1975, gage height, 10.40 ft (3.170 m), from rating curve extended above 500 ft^3/s (14.2 m^3/s) on basis of slope-area measurements of peak flow; no flow all or part of Sept. 13, 18-20, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 2, 1973, reached a stage of 14.5 ft (4.42 m), from floodmark, discharge, 11,400 ft^3/s (323 m^3/s) from slope-area measurements of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Jan. 4	1010	*1200	34.0	6.33	1.929
Feb. 3	0230	382	10.8	4.18	1.274
Apr. 3	1850	410	11.6	4.29	1.308
July 28	1015	512	14.5	4.67	1.423

No flow all or part of Sept. 13, 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	2.7	15	36	42	5.2	12	13	5.7	5.2	2.5	.82
2	5.9	2.3	69	16	11	5.2	7.3	11	7.2	4.1	2.1	1.8
3	1.6	1.8	9.7	10	152	5.1	75	14	4.9	5.3	1.8	4.4
4	.95	1.8	6.2	293	42	4.7	39	23	4.2	5.3	1.6	1.5
5	.83	1.6	5.0	44	18	6.6	15	5.0	4.2	3.8	1.9	.95
6	1.1	11	4.5	20	14	5.9	15	18	5.1	3.2	2.2	.66
7	2.6	4.7	4.0	16	11	36	13	4.7	7.2	2.8	1.7	.52
8	1.1	3.3	5.9	12	9.5	18	14	3.1	5.0	2.7	1.4	.55
9	.80	2.7	6.1	11	10	10	14	2.9	4.1	2.3	4.3	.60
10	.76	2.4	4.6	8.9	8.9	8.2	21	2.6	3.6	2.0	2.5	.45
11	.65	2.1	3.9	8.0	7.3	9.1	25	2.4	3.3	1.9	1.9	.30
12	.55	2.0	3.6	7.4	6.4	10	18	2.2	3.1	2.0	3.3	.08
13	.56	1.8	3.2	6.5	6.2	9.4	15	2.1	51	1.9	1.9	.02
14	.47	1.8	3.7	6.0	5.8	8.4	13	1.9	32	1.5	1.4	.18
15	.47	3.3	61	5.5	5.9	7.7	10	1.9	11	1.5	1.2	.06
16	.85	5.1	58	4.9	7.1	8.1	9.5	1.7	12	1.5	1.1	.05
17	.69	3.9	16	4.6	6.4	11	9.8	1.6	42	1.3	.95	.09
18	2.4	4.0	11	4.4	5.6	9.0	40	1.5	11	1.2	.88	.00
19	5.5	3.3	8.8	4.3	9.8	8.1	13	1.3	8.7	1.2	.80	.00
20	1.7	5.9	7.0	4.2	9.5	7.5	11	1.2	7.2	1.2	.75	.97
21	.84	5.1	6.1	3.6	9.7	8.1	9.6	2.3	6.1	1.2	.66	1.5
22	.95	3.6	6.2	4.2	8.8	7.5	8.5	2.5	5.6	.96	.50	1.6
23	5.3	3.2	20	9.2	7.1	6.5	7.7	4.6	5.9	.89	.54	8.6
24	8.4	2.9	13	11	6.7	6.1	7.2	4.7	4.8	.80	.65	1.9
25	3.5	2.9	9.6	6.1	6.0	6.0	6.6	9.2	4.2	.68	5.1	1.2
26	8.3	2.6	7.9	5.5	5.5	6.7	54	4.2	3.9	2.1	1.9	1.2
27	13	2.4	9.9	5.0	5.3	6.0	44	3.1	3.6	2.1	1.1	6.4
28	22	2.3	11	4.6	5.4	5.5	56	3.1	3.6	56	.79	2.4
29	5.1	2.2	8.6	4.2	---	5.3	20	35	22	8.4	.40	1.5
30	3.6	2.1	7.1	4.0	---	5.3	15	7.0	9.1	3.6	.35	1.3
31	3.0	---	6.3	4.9	---	11	---	6.8	---	3.0	.47	---
TOTAL	104.10	96.8	411.9	585.0	442.9	267.2	618.2	197.6	301.3	131.73	48.64	41.60
MEAN	3.36	3.23	13.3	18.9	15.8	8.62	20.6	6.37	10.0	4.25	1.57	1.39
MAX	22	11	69	293	152	36	75	35	51	56	5.1	8.6
MIN	.47	1.6	3.2	3.6	5.3	4.7	6.6	1.2	3.1	.68	.35	.00
CFSM	.61	.59	2.41	3.43	2.87	1.56	3.74	1.16	1.82	.77	.29	.25
IN.	.70	.65	2.78	3.95	2.99	1.80	4.17	1.33	2.03	.89	.33	.28

CAL YR 1981 TOTAL 2391.48 MEAN 6.55 MAX 135 MIN .28 CFSM 1.19 IN 16.14
WTR YR 1982 TOTAL 3246.97 MEAN 8.90 MAX 293 MIN .00 CFSM 1.62 IN 21.92

01404302 LAWRENCE BROOK AT DAVIDSONS MILL ROAD NEAR PATRICKS CORNER, NJ

LOCATION.--Lat 40°24'58", long 74°29'38", Middlesex County, Hydrologic Unit 02030105, at bridge on Davidsons Mill Road, 1,000 ft (304 m) upstream of Oakeys Brook, 1.0 mi (1.6 km) southwest of Patricks Corner, 1.5 mi (2.5 km) west of Paulas Corners, and 2.3 mi (3.8 km) south of Adams.

DRAINAGE AREA.--12.4 mi² (32.1 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 04...	1100	54	79	5.2	1.0	13.9	2.5	220	>2400	17
MAR 24...	1045	12	150	6.8	9.0	11.9	--	50	<2	30
MAY 26...	1100	11	128	7.2	16.0	8.5	<1.6	49	130	33
JUL 14...	1130	9.4	120	5.5	26.0	5.8	2.1	<200	400	28
AUG 09...	1230	3.0	189	6.0	24.0	4.5	2.1	23	240	35
SEP 27...	1230	.20	240	6.2	19.0	7.1	2.6	170	540	34

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 04...	3.7	1.9	6.7	1.1	1.0	--	15	9.4	.1
MAR 24...	6.3	3.4	17	1.5	8.0	--	37	11	<.1
MAY 26...	7.0	3.8	11	1.4	14	<.5	20	12	<.1
JUL 14...	5.9	3.3	12	1.0	14	--	18	10	<.1
AUG 09...	7.4	4.0	22	1.3	25	--	39	12	<.1
SEP 27...	7.0	4.1	34	2.4	23	<.5	59	12	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 04...	5.4	62	--	.50	--	.65	1.1	.21	8.6
MAR 24...	7.0	96	E.020	1.3	<.050	E1.20	--	.12	3.9
MAY 26...	5.4	87	.020	.80	.270	E.60	--	.12	4.2
JUL 14...	2.3	77	.010	.40	.210	.89	1.3	.15	7.5
AUG 09...	1.0	116	<.010	.50	E.050	.52	1.0	.12	5.6
SEP 27...	2.6	141	<.010	.60	E.050	.59	1.2	.18	3.7

01404302 LAWRENCE BROOK AT DAVIDSONS MILL ROAD NEAR PATRICKS CORNER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
26...	1100	10	1	<10	30	1	10	6
SEP								
27...	1230	40	1	<10	50	1	10	8

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
26...	1600	9	110	1.0	5	<1	70	8
SEP								
27...	1100	6	40	<.1	3	<1	30	4

01405000 LAWRENCE BROOK AT FARRINGTON DAM, NJ

LOCATION.--Lat 40°27'00", long 74°27'05", Middlesex County, Hydrologic Unit 02030105, on left bank 300 ft (90 m) upstream from Farrington Dam, 0.7 mi (2.1 km) southwest of Milltown, and 5.4 mi (8.7 km) upstream from mouth.

DRAINAGE AREA.--34.4 mi² (89.1 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1927 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1432: 1959(P).

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 25.8 ft (7.86 m), revised, National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Records given herein include flow over dam and through blowoff gates. Gates open May 14-20, Aug. 10 to Sept. 30. Flow regulated by Farrington Reservoir, capacity, 655,250,000 gal (2.48 hm³).

COOPERATION.--Water-stage recorder inspected by and records of gate openings furnished by employees of City of New Brunswick.

AVERAGE DISCHARGE.--55 years, 38.7 ft³/s (1.096 m³/s), 15.28 in/yr (388 mm/yr), adjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,920 ft³/s (139 m³/s) July 21, 1975, gage height, 26.93 ft (8.208 m), from rating curve extended above 1,100 ft³/s (31 m³/s) on basis of weir formula; no flow at times when gates in dam were closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1400	*927	26.3	25.49	7.769	Apr. 4	0100	480	13.6	25.28	7.705
Feb. 3	0800	556	15.7	25.30	7.711						

Minimum daily discharge, 2.6 ft³/s (0.074 m³/s) July 26, 27, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	6.1	29	38	131	20	34	36	21	27	5.4	8.2
2	4.1	6.0	17	48	68	22	25	31	21	17	4.4	8.2
3	4.2	5.6	15	24	379	23	84	28	16	36	3.5	11
4	4.2	5.0	13	466	136	23	232	26	14	85	2.9	13
5	4.2	7.3	12	158	76	40	71	24	18	39	2.8	12
6	4.2	10	13	61	62	36	69	22	24	22	2.9	11
7	4.2	11	14	47	48	69	63	20	24	16	2.8	9.8
8	4.2	13	15	32	37	98	59	20	19	14	2.6	8.9
9	4.2	16	16	20	40	59	68	20	15	12	2.9	8.8
10	4.2	17	14	17	42	43	66	18	13	10	30	8.7
11	4.2	18	12	14	33	38	77	17	11	8.4	21	8.6
12	4.2	18	11	13	28	36	62	17	10	10	21	8.5
13	4.2	23	10	14	26	33	50	18	44	16	18	8.5
14	4.2	39	11	15	23	29	42	13	102	12	15	8.4
15	4.2	43	93	14	25	26	34	4.0	46	9.6	13	8.4
16	4.2	44	180	13	29	25	31	3.9	28	7.8	11	8.4
17	4.2	39	74	13	29	35	29	3.8	80	6.7	10	8.4
18	4.2	47	48	12	26	34	84	3.7	42	5.7	9.8	8.3
19	4.2	43	31	12	42	28	57	3.6	26	4.9	8.7	8.3
20	4.2	38	19	13	55	26	40	3.6	19	4.5	8.3	8.3
21	4.2	34	16	12	53	25	32	3.6	15	4.4	8.2	8.3
22	4.2	33	15	12	52	23	28	3.9	13	3.8	8.2	8.2
23	4.2	33	25	26	39	21	27	3.9	14	3.1	8.2	8.3
24	4.4	29	35	47	33	20	24	7.6	12	2.9	8.1	8.3
25	4.4	28	21	30	28	20	23	17	11	2.7	8.2	8.4
26	4.6	27	17	19	24	21	51	19	9.0	2.6	13	8.5
27	4.7	24	16	15	23	19	93	15	8.0	2.6	12	8.5
28	5.0	24	18	14	22	18	103	14	7.4	4.2	11	8.5
29	5.5	43	16	14	---	18	69	79	37	9.3	10	8.5
30	6.1	60	15	14	---	17	48	49	56	7.9	8.9	8.5
31	6.1	---	13	17	---	23	---	28	---	6.6	8.3	---
TOTAL	137.1	784.0	854	1264	1609	968	1775	572.6	775.4	413.7	300.1	267.7
MEAN	4.42	26.1	27.5	40.8	57.5	31.2	59.2	18.5	25.8	13.3	9.68	8.92
MAX	6.1	60	180	466	379	98	232	79	102	85	30	13
MIN	4.0	5.0	10	12	22	17	23	3.6	7.4	2.6	2.6	8.2
(†)	+4.4	+2.1	-0.4	+0.3	-0.5	+0.2	0	-0.2	+0.2	-0.8	-0.5	-0.3
MEAN‡	8.86	28.2	27.1	41.1	57.0	31.4	59.2	18.3	26.0	12.5	9.19	8.60
CFSM‡	0.26	0.82	0.79	1.19	1.66	0.91	1.72	0.53	0.76	0.36	0.27	0.25
IN‡	0.30	0.91	0.91	1.38	1.73	1.05	1.92	0.61	0.84	0.42	0.31	0.28

CAL YR 1981 TOTAL 6565.4 MEAN 18.0 MAX 211 MIN 2.9 MEAN‡ 18.0 CFSM‡ 0.52 IN‡ 7.11
WTR YR 1982 TOTAL 9720.6 MEAN 26.6 MAX 466 MIN 2.6 MEAN‡ 27.0 CFSM‡ 0.78 IN‡ 10.66

† Change in contents, in cubic feet per second, in Farrington Reservoir.
‡ Adjusted for change in contents.

01405240 MATCHAPONIX BROOK NEAR ENGLISHTOWN, NJ

LOCATION.--Lat 40°19'21", long 74°21'35", Monmouth County, Hydrologic Unit 02030105, at bridge on Union Hill Road, 1.9 mi (3.1 km) north of Englishtown, 2.4 mi (3.8 km) southwest of Redshaw Corner, 2.8 mi (4.6 km) northwest of Gordons Corner, and 3.9 mi (6.3 km) upstream of Barclay Brook.

DRAINAGE AREA.--29.1 mi² (75.4 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN										
27...	0900	47	355	6.1	.0	13.2	<1.2	<20	2	55
APR										
01...	0940	64	235	5.9	8.0	10.2	E2.3	<20	33	52
MAY										
18...	0920	28	265	6.6	15.0	9.4	3.0	80	14	55

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN									
27...	15	4.2	33	4.4	8.0	--	59	45	.2
APR									
01...	15	3.6	14	3.3	10	--	43	20	.2
MAY									
18...	16	3.7	21	4.2	2.0	<.5	53	22	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
27...	11	193	.160	1.4	--	3.30	4.7	.28	3.6
APR									
01...	9.5	146	.080	1.2	2.10	E3.00	--	.31	3.6
MAY									
18...	10	139	.140	1.6	4.70	5.90	7.5	.52	4.3

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
18...	0920	30	1	<10	80	1	10	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
18...	2800	4	220	<.1	13	<1	40	2

01405285 BARCLAY BROOK NEAR ENGLISHTOWN, NJ

LOCATION.--Lat 40°20'53", long 74°21'27", Middlesex County, Hydrologic Unit 02030105, at bridge on Old Bridge-Englishtown Road, 0.6 mi (1.0 km) southwest of Redshaw Corner, 0.8 mi (1.3 km) upstream of mouth, 2.3 mi (3.6 km) southwest of Moeris Corner, and 3.5 mi (5.6 km) north of Englishtown.

DRAINAGE AREA.--4.94 mi² (12.79 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB 02...	0900	32	255	3.6	.0	12.8	<1.2	<20	22	25
APR 01...	1030	8.4	350	3.5	8.0	12.5	E1.6	<20	13	35
MAY 18...	1000	3.5	650	3.4	14.0	8.2	2.7	50	<20	49

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 02...	5.8	2.6	6.4	1.4	<1.0	--	56	9.0	.1
APR 01...	8.3	3.5	6.4	1.6	<1.0	--	86	10	.1
MAY 18...	12	4.7	5.3	2.6	<1.0	<.5	150	9.9	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 02...	6.3	98	.010	.10	--	.40	.50	.58	2.1
APR 01...	7.9	156	<.010	<.10	.220	E.55	--	<.06	2.4
MAY 18...	8.5	182	<.010	<.10	.550	.80	--	.09	3.1

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY 18...	1000	5200	1	<10	20	1	10	50

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY 18...	12000	34	750	<.1	47	<1	160	2

01405302 MATCHAPONIX BROOK AT MUNDY AVENUE AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°22'55", Middlesex County, Hydrologic Unit 02030105, at bridge on Mundy Avenue in Spottswood, 0.2 mi (0.3 km) upstream from mouth, 0.5 mi (0.8 km) east of De Voe Lake dam, and 3.4 mi (5.5 km) southeast of Tanners Corners.

DRAINAGE AREA.--44.1 mi² (114.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 02...	0950	254	215	5.1	.0	12.8	E1.6	<20	70	35
APR 01...	1130	50	230	5.1	8.5	9.3	E2.5	<20	17	51
MAY 18...	1050	18	245	5.4	16.0	8.6	E2.0	<20	170	51
JUL 21...	1015	162	177	6.2	22.5	5.6	6.7	5400	>2400	41
AUG 23...	0945	9.0	275	5.9	18.5	3.4	<.9	50	540	54
SEP 29...	1030	--	204	5.5	17.0	5.4	<1.2	40	540	45

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 02...	9.3	2.8	18	2.7	2.0	--	35	28	.2
APR 01...	14	4.0	14	3.0	1.0	--	58	17	.2
MAY 18...	14	3.9	17	3.6	2.0	--	54	20	.2
JUL 21...	12	2.7	12	3.5	2.0	--	31	18	.2
AUG 23...	16	3.4	23	5.1	1.0	--	50	24	.2
SEP 29...	13	3.0	14	4.4	<1.0	<.5	39	20	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 02...	6.1	114	E.060	.70	--	.85	1.5	.12	2.1
APR 01...	9.4	128	.050	1.0	1.90	E2.60	--	.09	3.3
MAY 18...	9.1	139	.030	1.6	1.90	2.20	3.8	<.06	1.6
JUL 21...	8.2	107	.060	1.4	.720	2.40	3.8	1.00	7.9
AUG 23...	12	184	.070	6.4	.140	2.30	8.7	.55	6.2
SEP 29...	10	147	.010	3.5	E.360	.90	4.4	.45	4.3

01405302 MATCHAPONIX BROOK AT MUNDY AVENUE AT SPOTSWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP 29...	1030	110	1	<10	70	1	10	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP 29...	1500	13	190	<.1	9	<1	40	2

01405340 MANALAPAN BROOK AT FEDERAL ROAD NEAR MANALAPAN, NJ

LOCATION.--Lat 40°17'46", long 74°23'53", Middlesex County, Hydrologic Unit 02030105, at bridge on Federal Road, 2.6 mi (4.2 km) north of Manalapan, 3.1 mi (5.0 km) southwest of Matchaponix, 3.3 mi (5.3 km) downstream of Still House Brook, and 4.1 mi (6.7 km) northeast of Applegarth.

DRAINAGE AREA.--20.9 mi^2 (54.1 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 27...	1045	31	155	5.6	.0	15.0	<.4	<20	11	36
APR 01...	1320	25	128	5.7	10.0	11.8	E2.0	<20	2	35
MAY 18...	1145	9.0	120	6.5	16.0	10.4	2.5	50	170	33
JUL 21...	0915	62	105	5.7	21.5	6.0	2.6	2400	>2400	28
AUG 23...	1140	3.0	122	6.6	18.0	8.5	E1.8	140	350	35
SEP 29...	0920	3.2	113	6.5	16.0	8.8	E2.0	20	540	35

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 27...	8.5	3.7	7.2	2.6	1.0	--	31	15	.2
APR 01...	8.0	3.6	5.8	2.1	1.0	--	28	9.5	.2
MAY 18...	7.8	3.4	4.7	2.2	6.0	--	25	9.3	.2
JUL 21...	6.8	2.7	4.8	3.1	3.0	--	23	8.0	.2
AUG 23...	7.9	3.8	7.3	2.5	9.0	--	22	11	.3
SEP 29...	7.9	3.7	6.0	3.3	12	<.5	18	12	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 27...	11	91	<.010	1.4	--	.30	1.7	.09	1.0
APR 01...	9.1	90	<.010	.80	.120	E.43	--	.09	1.8
MAY 18...	9.2	72	<.010	.80	.090	.35	1.1	.12	2.4
JUL 21...	8.2	89	.040	.60	.220	1.40	2.0	.67	7.1
AUG 23...	9.2	78	<.010	.50	.080	.32	.82	.18	2.3
SEP 29...	9.4	89	<.010	.40	E.050	.43	.83	.15	3.1

01405340 MANALAPAN BROOK AT FEDERAL ROAD NEAR MANALAPAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP								
29...	0920	20	1	<10	10	1	40	11

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP								
29...	1800	9	80	<.1	22	<1	60	2

01405400 MANALAPAN BROOK AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°23'27", Middlesex County, Hydrologic Unit 02030105, on right bank of DeVoe Lake Dam in Spotswood, 0.1 mi (0.2 km) upstream from Cedar Brook, and 0.6 mi (1.0 km) upstream from confluence with Matchaponix Brook.

DRAINAGE AREA.--40.7 mi^2 (105.4 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1957 to current year.

REVISED RECORDS.--WSP 1722: 1957-60.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Duhernal Water System). January 1957 to September 1966 at datum 17.72 ft (5.401 m) higher.

REMARKS.--Water-discharge records good. Discharge given herein include flow over dam and through waste gates. Waste gates were not open during the year. Some regulation by Lake Manalapan, Helmetta Pond, and DeVoe Lake.

AVERAGE DISCHARGE.--25 years, 64.8 ft^3/s (1.835 m^3/s), 21.62 in/yr (549 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) May 30, 1968, elevation, 19.90 ft (6.066 m), waste gates open; no flow part or all of some days in many years when gates were closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 339 ft^3/s (9.60 m^3/s) Feb. 4, elevation, 18.59 ft (5.666 m); minimum daily, 9.5 ft^3/s (0.27 m^3/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	26	21	49	144	36	47	69	59	36	24	20
2	14	25	66	86	168	36	48	58	51	29	19	21
3	14	25	80	59	212	36	52	51	44	38	17	33
4	13	22	47	148	327	38	107	49	39	82	16	28
5	13	20	34	307	140	70	55	48	42	54	15	22
6	12	25	29	194	94	72	27	45	54	36	20	19
7	13	30	27	85	70	106	97	43	55	29	18	17
8	12	26	26	65	58	201	88	41	50	26	16	17
9	11	23	27	55	56	121	101	40	42	24	17	17
10	10	21	25	47	65	76	92	39	37	22	20	17
11	10	21	23	76	59	63	117	37	35	21	21	17
12	10	21	21	34	49	58	97	35	32	36	30	16
13	10	20	21	32	47	54	73	36	50	67	24	14
14	10	19	20	33	45	50	65	35	187	34	20	14
15	10	20	79	34	44	47	58	32	162	27	18	14
16	9.5	30	193	34	47	45	51	29	75	24	17	16
17	10	33	220	33	51	54	50	29	100	22	17	17
18	11	41	101	35	45	60	128	28	90	21	17	15
19	20	39	65	35	48	56	136	27	62	22	16	14
20	19	43	48	34	69	51	76	28	53	26	16	15
21	15	48	40	34	68	48	60	38	45	125	16	21
22	11	34	39	31	62	46	52	40	38	96	15	23
23	12	28	44	41	55	43	48	44	35	37	18	25
24	19	24	54	77	49	40	45	47	33	28	20	22
25	21	22	49	76	44	39	43	55	30	24	33	18
26	40	21	43	56	37	39	49	63	29	21	34	14
27	55	21	41	41	35	39	122	46	28	20	27	20
28	52	20	42	36	36	38	180	39	25	30	22	23
29	47	19	40	34	---	36	185	146	34	39	20	20
30	34	18	38	33	---	36	98	172	43	32	19	15
31	29	---	35	42	---	36	---	84	---	26	19	---
TOTAL	576.5	785	1638	1976	2224	1770	2447	1573	1659	1154	621	564
MEAN	18.6	26.2	52.8	63.7	79.4	57.1	81.6	50.7	55.3	37.2	20.0	18.8
MAX	55	48	220	307	327	201	185	172	187	125	34	33
MIN	9.5	18	20	31	35	36	27	27	25	20	15	14
CFSM	.46	.64	1.30	1.57	1.95	1.40	2.01	1.25	1.36	.91	.49	.46
IN.	.53	.72	1.50	1.81	2.03	1.62	2.24	1.44	1.52	1.05	.57	.52

CAL YR 1981 TOTAL 12877.5 MEAN 35.3 MAX 220 MIN 9.5 CFSM .87 IN 11.77
WTR YR 1982 TOTAL 16987.5 MEAN 46.5 MAX 327 MIN 9.5 CFSM 1.14 IN 15.53

01405440 MANALAPAN BROOK AT BRIDGE STREET AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'26", long 74°23'26", Middlesex County, Hydrologic Unit 02030105, at bridge on Bridge Street in Spotswood, 150 ft (46 m) downstream from Cedar Brook, and 400 ft (120 m) below DeVoe Lake Dam.

DRAINAGE AREA.--43.9 mi² (113.7 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN 27...	1000	190	4.9	.0	15.2	<.6	<20	15	36
APR 01...	1230	140	4.6	9.0	12.6	E1.8	<20	11	32
MAY 18...	1120	136	5.2	16.5	8.6	E2.1	170	79	29
JUL 21...	1100	132	5.7	23.0	7.6	2.7	790	>2400	30
AUG 23...	1015	112	6.0	19.0	7.5	<.7	80	540	27
SEP 29...	1130	122	5.7	17.0	8.2	<1.2	50	540	28

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 27...	8.1	3.8	13	2.7	<1.0	--	35	23	.2
APR 01...	7.0	3.6	6.7	2.1	<1.0	--	31	10	.1
MAY 18...	6.2	3.2	6.9	2.1	<1.0	--	29	11	.1
JUL 21...	6.7	3.2	9.0	2.5	1.0	--	28	11	.1
AUG 23...	5.7	3.2	9.5	2.3	4.0	--	20	11	.2
SEP 29...	6.1	3.2	7.4	2.9	1.0	<.5	20	13	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 27...	8.6	106	.010	1.2	--	.60	1.8	.06	1.6
APR 01...	7.2	92	.010	1.0	.340	.54	1.5	<.06	1.5
MAY 18...	5.6	75	<.010	.70	.500	.85	1.5	.12	2.3
JUL 21...	4.3	84	.010	.60	.420	1.40	2.0	.21	4.0
AUG 23...	4.1	81	<.010	1.0	.120	.63	1.6	.12	2.4
SEP 29...	3.4	87	.010	.90	E.210	.51	1.4	.15	2.6

01405440 MANALAPAN BROOK AT BRIDGE STREET AT SPOTSWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP								
29...	1130	60	1	<10	30	1	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP								
29...	1200	9	40	<.1	5	<1	30	6

01405500 SOUTH RIVER AT OLD BRIDGE, NJ

LOCATION.--Lat 40°24'22", long 74°22'08", Middlesex County, Hydrologic Unit 02030105, on right abutment of Duhernal Dam, 0.6 mi (1.0 km) south of Old Bridge, 2.3 mi (3.7 km) upstream from Deep Run, and 9.1 mi (14.6 km) upstream from mouth.

DRAINAGE AREA.--94.6 mi² (245.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1939 to current year.

REVISED RECORDS.--WSP 1902: 1957.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. The flow past this station is affected by pumpage from well fields for industrial use by Duhernal Water System. Some regulation by Duhernal Lake, capacity, 138,000,000 gal (522,300 m³), Lake Manalapan, DeVoe Lake, and several small ponds in headwater tributaries.

AVERAGE DISCHARGE.--43 years, 140 ft³/s (3.965 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft³/s (120 m³/s) Sept. 15, 1944, elevation, 11.71 ft (3.569 m), waste gates open; maximum gage height, 11.73 ft (3.575 m) Aug. 28, 1971; no flow on days when waste gates were closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 5	1400	*1190	33.7	10.73	3.271
Feb. 4	0900	1080	30.6	10.68	3.255

Minimum discharge, 18 ft³/s (0.51 m³/s) Oct. 1, 1981, gage height, 9.51 ft (2.899 m).

REVISIONS.--The peak discharges for water years 1975 through 1980, not previously published, are shown in the following table:

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3, 1974	-	777	22.0	10.53	3.210	Jan. 18, 1978	-	1330	37.7	10.79	3.289
Dec. 17, 1974	-	1370	38.8	10.81	3.295	Jan. 27, 1978	-	3000	85.0	11.38	3.469
Feb. 25, 1975	-	954	27.0	10.62	3.237	Mar. 15, 1978	-	1780	50.4	10.97	3.344
June 14, 1975	-	853	24.2	10.57	3.222	Mar. 27, 1978	-	1400	39.6	10.82	3.298
July 16, 1975	-	1330	37.7	10.79	3.289	May 25, 1978	-	1730	49.0	10.95	3.338
Sept. 25, 1975	-	1940	54.9	11.03	3.362	Dec. 10, 1978	-	1080	30.6	10.68	3.255
Oct. 20, 1975	-	739	20.9	10.51	3.203	Dec. 26, 1978	-	758	21.5	10.52	3.206
Feb. 25, 1977	-	1190	33.7	10.73	3.271	Jan. 9, 1979	-	996	28.2	10.64	3.243
Apr. 6, 1977	-	796	22.5	10.54	3.213	Jan. 25, 1979	-	1830	51.8	10.99	3.350
Dec. 2, 1977	-	1080	30.6	10.68	3.255	Feb. 26, 1979	-	3120	88.4	11.42	3.481
Dec. 19, 1977	-	1040	29.5	10.66	3.249	Mar. 7, 1979	-	1600	45.3	10.90	3.322
Dec. 22, 1977	-	877	24.8	10.58	3.225	May 25, 1979	-	1230	34.8	10.75	3.277
						June 5, 1979	-	777	22.0	10.53	3.210
						Sept. 7, 1979	-	777	22.0	10.53	3.210

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	34	38	101	352	75	102	180	147	70	41	26
2	25	32	152	225	410	74	108	154	121	53	38	29
3	28	30	190	157	595	79	120	132	100	65	34	53
4	24	29	111	368	981	79	497	121	78	235	32	62
5	22	28	77	1010	416	170	390	116	81	160	32	41
6	22	37	61	532	234	179	214	102	126	91	35	32
7	23	57	51	216	184	251	252	95	136	62	33	28
8	23	46	52	174	155	488	230	88	122	52	32	25
9	22	35	61	141	150	289	254	81	92	44	32	24
10	20	32	59	119	178	181	231	75	71	40	39	23
11	20	31	52	83	156	161	295	67	60	35	41	23
12	20	29	47	74	127	149	249	59	55	49	55	22
13	20	27	45	62	116	136	193	57	77	145	60	21
14	19	26	45	63	108	121	176	58	430	81	44	21
15	19	27	203	69	102	108	158	55	444	51	36	21
16	20	45	521	69	115	99	134	50	189	42	31	22
17	20	60	590	67	127	128	112	47	237	37	28	23
18	22	83	259	60	112	148	282	45	207	34	28	22
19	33	86	173	59	115	122	363	44	145	32	25	22
20	36	78	128	62	186	108	195	42	114	34	24	23
21	28	124	96	65	174	99	156	56	88	199	23	35
22	23	79	86	65	166	94	135	79	70	209	22	43
23	25	54	95	85	140	86	117	76	65	87	22	51
24	38	44	139	235	119	78	107	87	62	53	24	50
25	44	39	124	225	103	75	98	116	53	43	49	39
26	100	37	101	174	85	76	101	160	47	38	83	33
27	126	37	91	125	79	74	300	101	42	35	53	39
28	137	38	97	105	77	69	439	71	39	51	37	53
29	94	35	93	100	---	67	486	275	54	91	30	45
30	53	35	82	96	---	65	244	421	84	68	27	37
31	40	---	70	108	---	68	---	198	---	49	25	---
TOTAL	1165	1374	3989	5094	5862	3996	6738	3308	3636	2335	1115	988
MEAN	37.6	45.8	129	164	209	129	225	107	121	75.3	36.0	32.9
MAX	137	124	590	1010	981	488	497	421	444	235	83	62
MIN	19	26	38	59	77	65	98	42	39	32	22	21

CAL YR 1981 TOTAL 27742 MEAN 76.0 MAX 590 MIN 18
WTR YR 1982 TOTAL 39600 MEAN 108 MAX 1010 MIN 19

01405700 SOUTH RIVER BELOW DUHERNAL DAM AT OLD BRIDGE, NJ

LOCATION.--Lat 40°25'00", long 74°21'43", Middlesex County, Hydrologic Unit 02030105, at bridge on Old Bridge-South Amboy Road in Old Bridge, 0.5 mi (0.8 km) upstream of Deep Run, and 7.4 mi (11.9 km) upstream from mouth.

DRAINAGE AREA.--95.9 mi² (248.4 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-77, January 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB 09...	1045	199	4.8	2.0	12.3	3.0	5	21	41
MAR 25...	1100	217	5.3	9.5	10.4	1.2	<20	<20	45
JUN 02...	1030	158	5.0	19.0	9.0	.6	130	110	35
JUL 21...	1145	2800	6.4	26.0	5.6	2.9	170	180	310
AUG 23...	1050	2600	6.6	21.0	6.7	E1.8	80	540	300
SEP 29...	1230	410	6.2	18.0	6.8	<1.1	170	1600	59

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 09...	10	3.8	16	2.5	1.0	--	40	25	.1
MAR 25...	10	4.9	21	2.8	2.0	--	40	34	.1
JUN 02...	8.6	3.2	8.1	2.2	2.0	--	37	11	.1
JUL 21...	28	59	520	21	11	--	150	870	.2
AUG 23...	29	56	450	19	18	--	140	780	.2
SEP 29...	11	7.6	47	5.2	4.0	<.5	37	84	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 09...	8.1	97	--	1.0	--	1.00	2.0	.06	1.8
MAR 25...	7.2	135	<.010	1.1	.840	E1.50	--	.12	1.8
JUN 02...	5.7	101	<.010	.80	E.360	.95	1.7	.06	3.0
JUL 21...	4.0	1940	.020	.40	.240	.93	1.3	.25	13
AUG 23...	2.5	2010	<.010	.62	.080	.42	1.0	.18	3.9
SEP 29...	3.3	258	<.010	2.0	E.050	.51	2.5	.18	2.5

01405700 SOUTH RIVER BELOW DUHERNAL DAM AT OLD BRIDGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP 29...	1230	20	1	<10	60	1	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP 29...	450	10	30	.1	4	<1	20	3

RESERVOIRS IN RARITAN RIVER BASIN

01396790 **SPRUCE RUN RESERVOIR.**--Lat 40°38'30", long 74°55'19", Hunterdon County, Hydrologic Unit 02030105, at dam on Spruce Run, 0.5 mi (0.8 km) north of Clinton, and 0.6 mi (1.0 km) upstream from mouth. DRAINAGE AREA, 41.3 mi^2 (107.0 km^2). PERIOD OF RECORD, November 1963 to current year. Nonrecording gage read daily. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam with concrete spillway; dam completed in October 1963 with crest of spillway at elevation 273.00 ft (83.210 m). Usable capacity, 11,000,000,000 gal (41.635 hm^3). Dead storage 300,000 gal (1,136 m^3). Reservoir used for water supply and recreation. Outflow mostly regulated by gates. Water is released to maintain minimum flow on the South Branch Raritan River and, at times, for municipal supply. Records given herein represent usable capacity. Records furnished by New Jersey Water Supply Authority

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 11,400,000,000 gal (43.15 hm^3) Jan. 24, 1979, elevation, 274.72 ft (83.735 m); minimum observed, 4,600,000,000 gal (17.41 hm^3) Feb. 1, 1981, elevation, 253.58 ft (77.291 m).

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 11,000,000,000 gal (41.635 hm^3) June 2, elevation, 273.14 ft (83.253 m); minimum observed, 8,500,000,000 gal (32.17 hm^3) Oct. 23, elevation, 266.84 ft (81.333 m).

01397050 **ROUND VALLEY RESERVOIR.**--Lat 40°36'39", long 74°50'42", Hunterdon County, Hydrologic Unit 02030105, at main dam on Prescott Brook, 1.8 mi (2.9 km) south of Lebanon, 3.2 mi (5.1 km) upstream from mouth, and 4.5 mi (7.2 km) west of Whitehouse. DRAINAGE AREA, 5.7 mi^2 (14.8 km^2). PERIOD OF RECORD, March 1966 to current year. Nonrecording gage read daily. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam at main dam on Prescott Brook and two dams on South Branch Rockaway River at Lebanon; storage began in March 1966. Capacity at spillway level, 55,000,000,000 gal (208.175 hm^3), elevation, 385.00 ft (117.348 m). Reservoir is used primarily for storage and is filled by pumping from South Branch Raritan River at Hamden Pumping Station (see following page). Outflow is controlled by operation of gates in pipe in dams. Water is released into South Branch Rockaway Creek and Prescott Brook. Records furnished by New Jersey Water Supply Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 55,400,000,000 gal (209.69 hm^3) June 15, 1975, elevation, 385.63 ft (117.540 m); minimum observed (after first filling), 37,100,000,000 gal (140.42 hm^3) Feb. 9, 1981, elevation, 361.30 ft (110.124 m).

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 44,000,000,000 gal (166.54 hm^3) June 30, elevation, 370.52 ft (112.934 m); minimum observed, 39,700,000,000 gal (150.26 hm^3) Sept. 30, elevation, 364.72 ft (111.167 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation* (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation* (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01396790	SPRUCE RUN RESERVOIR		013970500	ROUND VALLEY RESERVOIR	
Sept. 30	270.43	9,900	-	368.39	42,400	-
Oct. 31	267.78	8,900	-49.9	368.29	42,300	-0.5
Nov. 30	267.38	8,800	-5.2	368.12	42,200	-5.2
Dec. 31	269.76	9,600	-39.9	368.35	42,300	+10.0
CAL YR 1981	-	-	+18.6	-	-	+10.6
Jan. 31	272.41	10,800	+59.9	368.75	42,600	-15.0
Feb. 28	272.43	10,700	-5.5	369.06	42,900	+16.6
Mar. 31	272.52	10,800	+5.0	369.26	43,100	+5.0
Apr. 30	272.94	11,000	+10.3	369.85	43,600	+25.8
May 31	273.10	11,000	0	370.15	43,800	+10.0
June 30	273.04	11,000	0	370.52	44,000	+10.3
July 31	271.08	10,100	-44.9	370.42	44,000	-5.0
Aug. 31	271.08	10,100	0	368.10	42,200	-84.8
Sept. 30	271.34	10,200	-5.2	364.72	39,700	-128.9
WTR YR 1982	-	-	+1.3	-	-	-11.4

* Elevation at 0800 on first day of following month.

DIVERSIONS IN RARITAN RIVER BASIN

01396920 Water is diverted 4.0 mi (6.4 km) upstream from the gaging station on South Branch Raritan River at Stanton (see sta 01397000), at the Hamden Pumping Station, for storage in Round Valley Reservoir. Records furnished by New Jersey Water Supply Authority.

01400490 Johns-Manville Products Corporation diverts water 1,500 ft (457 m) upstream from the gaging station on Raritan River at Manville (sta 01400500) for industrial processes and cooling purposes. The effluent is then mixed with that from the Borough of Manville sewage treatment plant and discharged into the Raritan River 600 ft (182.9 m) downstream from the Millstone River. Records furnished by the Johns-Manville Products Corporation.

01400509 Elizabethtown Water Company diverts water from the Raritan and Millstone Rivers just upstream from the mouth of the Millstone River. Records given herein represent the total diversion from both rivers. Records furnished by the Elizabethtown Water Company.

01400836 Water is diverted from Carnegie Lake (Millstone River) to the Delaware and Raritan Canal at the aqueduct 2.3 mi (3.7 km) upstream from the gaging station on the Delaware and Raritan Canal (sta 01460500). Records furnished by New Jersey Water Supply Authority.

01402910 Water is diverted from the Raritan River just below the Millstone River to the Delaware and Raritan Canal at Ten Mile Lock for municipal supply. Records furnished by the New Jersey Water Supply Authority.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Month	HAMDEN PUMPING STATION 01396920	JOHNS-MANVILLE PRODUCTS CORPORATION 01400490	ELIZABETHTOWN WATER COMPANY 01400509	CARNEGIE LAKE 01400836	TEN MILE LOCK DIVERSION 01402910
October..........	0	2.4	124	2.1	24.8
November.........	0	2.7	127	0	65.1
December.........	0	2.7	120	0	59.3
CAL YR 1981...	30.3	3.0	129	3.4	12.4
January..........	0	3.2	142	0	51.9
February.........	0	2.6	147	32.0	1.7
March............	0	2.0	142	50.0	0
April............	0	2.6	140	56.3	0
May..............	0	2.0	147	49.7	16.2
June.............	0	3.0	147	29.8	0
July.............	0	2.9	152	15.7	26.1
August...........	0	2.8	136	0	60.3
September........	0	2.6	145	0	49.0
WTR YR 1982...	0	2.6	139	19.6	29.5

01407253 WILLOW BROOK NEAR HOLMDEL, NJ

LOCATION.--Lat 40°19'47", long 74°10'26", Monmouth County, Hydrologic Unit 02030104, at bridge on Willow Brook Road, 0.6 mi (1.0 km) upstream of Big Brook, 1.2 mi (1.9 km) southeast of Holmdel, 1.3 mi (2.1 km) northeast of Vanderburg, and 1.6 mi (2.6 km) northwest of Sugar Loaf Hill.

DRAINAGE AREA.--7.52 mi^2 (19.48 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB 02...	1030	41	237	6.7	.0	14.6	<1.4	170	540	69
MAR 22...	1030	15	250	6.0	6.5	14.6	E1.8	80	21	82
MAY 19...	0930	13	250	7.2	13.0	10.4	E1.2	1300	920	85
JUL 07...	1040	15	242	7.2	17.0	9.5	E1.4	790	1600	89
AUG 09...	1030	10	255	7.1	20.0	8.5	<1.0	1700	>2400	--
SEP 20...	1100	14	255	7.7	14.0	9.5	3.0	16000	>2400	98

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 02...	22	3.5	13	3.2	21	--	39	24	.2
MAR 22...	26	4.2	12	2.3	28	--	40	22	.2
MAY 19...	28	3.7	8.9	2.4	40	--	40	24	.3
JUL 07...	29	4.1	11	2.5	40	--	37	21	.3
AUG 09...	--	--	--	--	--	--	--	--	--
SEP 20...	33	3.7	8.1	3.4	40	<.5	33	22	.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 02...	9.1	146	E.030	.80	--	.49	1.3	.15	1.1
MAR 22...	11	154	<.010	.70	.090	E.62	--	.15	1.7
MAY 19...	11	133	.010	.71	<.050	.35	1.1	.15	2.1
JUL 07...	13	175	.020	.80	.180	.56	1.4	.34	2.1
AUG 09...	--	--	<.010	.60	E.050	.49	1.1	.25	3.4
SEP 20...	13	178	<.010	.60	.050	.81	1.4	.45	3.2

01407253 WILLOW BROOK NEAR HOLMDEL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP								
20...	1100	20	3	<10	120	1	10	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP								
20...	7500	9	120	<.1	8	<1	30	1

01407400 YELLOW BROOK AT COLTS NECK, NJ

LOCATION.--Lat 40°17'47", long 74°10'16", Monmouth County, Hydrologic Unit 02030104, at bridge on Creamery Road in Colts Neck, and 0.3 mi (0.5 km) upstream from Mine Brook.

DRAINAGE AREA.--9.71 mi^2 (25.15 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN 28...	0930	7.0	170	7.3	.0	15.2	E2.3	70	350	43
MAR 22...	0930	13	130	6.3	5.5	14.0	E1.1	60	11	42
MAY 19...	0900	9.9	133	6.9	14.0	8.9	E1.2	790	920	41
JUL 07...	0950	8.9	132	6.7	18.5	9.2	E1.7	490	>2400	45
AUG 09...	0930	8.3	126	6.8	21.5	8.1	<.9	3500	>2400	44
SEP 20...	1000	5.0	132	7.0	15.0	8.8	3.4	5400	>2400	44

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 28...	11	3.7	12	1.7	23	--	17	20	.2
MAR 22...	11	3.6	7.8	1.6	17	--	16	13	.2
MAY 19...	11	3.2	5.8	1.5	24	--	13	14	.2
JUL 07...	12	3.7	7.8	1.4	25	--	11	12	.2
AUG 09...	12	3.4	6.4	1.6	24	--	9.0	13	.3
SEP 20...	12	3.4	5.6	2.3	22	<.5	9.0	14	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 28...	14	106	.030	1.2	--	.40	1.6	.09	1.5
MAR 22...	13	90	<.010	1.2	.090	E.62	--	.25	1.6
MAY 19...	12	144	.010	.90	.100	.50	1.4	.09	2.6
JUL 07...	16	91	.020	.90	.080	.35	1.2	.15	3.1
AUG 09...	15	79	.010	.80	E.130	.44	1.2	.12	2.4
SEP 20...	13	110	.010	.90	.070	.87	1.8	.18	2.6

01407400 YELLOW BROOK AT COLTS NECK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP								
20...	1000	10	1	<10	220	1	20	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP								
20...	2500	6	60	<.1	4	<1	30	15

01407500 SWIMMING RIVER NEAR RED BANK, NJ

LOCATION.--Lat 40°19'10", long 74°06'55", Monmouth County, Hydrologic Unit 02030104, on left bank, 50 ft (15 m) upstream from spillway at Swimming River Reservoir, 3.3 mi (5.3 km) southwest of Red Bank, and 4.8 mi (7.7 km) upstream from mouth. Water-quality samples collected at bridge on Swimming River Road, 800 ft (244 m) downstream from gaging station.

DRAINAGE AREA.--48.5 mi^2 (125.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1922 to current year.

REVISED RECORDS.--WSP 781. Drainage area. WSP 891: 1939.

GAGE.--Water-stage recorder above dam. Datum of gage is 30.00 ft (9.144 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 19, 1962, at site 800 ft (240 m) upstream at datum 17.67 ft (5.386 m) lower. Jan. 19 to Mar. 30, 1962, nonrecording gage, 700 ft (210 m) upstream at datum 13.87 ft (4.228 m) lower.

REMARKS.--Water-discharge records good. Records given herein represent flow over spillway and flow or leakage through blowoff gates (gate open Jan. 6 to Mar. 2). Diversion above station for municipal supply. Flow regulated by Swimming River Reservoir.

COOPERATION.--Water-stage recorder inspected by and record of diversion furnished by Monmouth Consolidated Water Co.

AVERAGE DISCHARGE.--60 years, 80.2 ft^3/s (2.272 m^3/s), 22.44 in/yr (570 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,910 ft^3/s (252 m^3/s) Oct. 27, 1943, gage height, 8.96 ft (2.731 m) site and datum then in use, from rating curve extended above 1,000 ft^3/s (28.3 m^3/s) on basis of weir formula; no flow some days in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in July 1919 reached a stage of 7.84 ft (site and datum then in use), from floodmark, discharge about 11,800 ft^3/s (334 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 593 ft^3/s (16.8 m^3/s) Feb. 3, gage height, 5.62 ft (1.713 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	179	13	18	46	32	3.5	.02	.00
2	.00	.00	.00	.00	95	14	15	37	29	1.9	.00	.00
3	.00	.00	.00	.00	372	14	25	31	19	3.2	.00	.00
4	.00	.00	.00	99	178	15	140	35	16	27	.00	.00
5	.00	.00	.00	192	82	45	51	34	23	21	.00	.00
6	.00	.00	.00	86	65	42	86	30	50	13	.00	.00
7	.00	.00	.00	56	51	93	67	27	49	8.5	.00	.00
8	.00	.00	.00	46	45	142	46	24	37	5.1	.00	.00
9	.00	.00	.00	41	43	55	60	23	24	2.6	.00	.00
10	.00	.00	.00	38	45	40	59	16	17	1.0	.00	.00
11	.00	.00	.00	34	42	39	76	12	14	.26	.00	.00
12	.00	.00	.00	33	39	39	65	9.2	13	.14	.00	.00
13	.00	.00	.00	32	37	34	54	8.5	45	.13	.00	.00
14	.00	.00	.00	32	35	25	52	7.5	281	.00	.00	.00
15	.00	.00	.00	33	34	17	42	5.2	78	.00	.00	.00
16	.00	.00	.00	33	34	17	38	3.1	47	.00	.00	.00
17	.00	.00	.00	33	35	39	28	1.7	107	.00	.00	.00
18	.00	.00	.00	33	35	43	116	.96	58	.00	.00	.00
19	.00	.00	.00	32	16	37	61	.57	43	.00	.00	.00
20	.00	.00	.00	32	12	33	42	.31	34	.02	.00	.00
21	.00	.00	.00	33	14	30	34	.69	21	1.7	.00	.00
22	.00	.00	.00	33	16	25	26	1.5	16	1.5	.00	.00
23	.00	.00	.00	36	15	17	22	2.7	15	.47	.00	.00
24	.00	.00	.00	112	14	17	18	6.2	13	.17	.00	.00
25	.00	.00	.00	89	15	17	15	18	9.4	.00	.00	.00
26	.00	.00	.00	61	13	19	28	26	6.4	.00	.00	.00
27	.00	.00	.00	54	13	15	119	20	4.0	.00	.00	.00
28	.00	.00	.00	47	13	13	193	21	3.1	.12	.00	.00
29	.00	.00	.00	45	---	12	88	141	2.7	.33	.00	.00
30	.00	.00	.00	43	---	12	59	64	4.3	.20	.00	.00
31	.00	---	.00	47	---	14	---	41	---	.13	.00	---
TOTAL	.00	.00	.00	1485.00	1587	987	1743	694.13	1110.9	91.97	.02	.00
MEAN	.000	.000	.000	47.9	56.7	31.8	58.1	22.4	37.0	2.97	.001	.000
MAX	.00	.00	.00	192	372	142	193	141	281	27	.02	.00
MIN	.00	.00	.00	.00	12	12	15	.31	2.7	.00	.00	.00
(†)	23.4	21.8	58.6	46.3	31.5	33.5	36.6	41.7	37.0	42.0	27.5	27.4
MEAN‡	23.4	21.8	58.6	94.2	88.2	65.4	94.7	64.1	74.0	45.0	27.5	27.4
CFSM‡	0.48	0.45	1.21	1.94	1.82	1.35	1.95	1.32	1.52	0.93	0.57	0.56
IN‡	0.56	0.50	1.39	2.24	1.89	1.56	2.18	1.52	1.70	1.07	0.65	0.63

CAL YR 1981 TOTAL 4060.39 MEAN 11.1 MAX 249 MIN .00 MEAN‡ 47.5 CFSM‡ 0.98 IN‡ 13.30
WTR YR 1982 TOTAL 7699.02 MEAN 21.1 MAX 372 MIN .00 MEAN‡ 56.5 CFSM‡ 1.16 IN‡ 15.81

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† Diversion and change in contents in Swimming River Reservoir, in cubic feet per second.
‡ Adjusted for diversion and change in contents.

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°11'56", long 74°04'14", Monmouth County, Hydrologic Unit 02030104, on left bank 100 ft (30 m) upstream from bridge on Remsen Mill Road, 0.3 mi (0.5 km) downstream from Robins Swamp Brook, and 1.7 mi (2.7 km) west of Neptune City.

DRAINAGE AREA.--9.96 mi² (25.80 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7.05 ft (2.149 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Diversion above station by Monmouth Consolidated Water Co. for municipal supply and by farmers for irrigation.

COOPERATION.--Water-stage recorder inspected by Monmouth Consolidated Water Co.

AVERAGE DISCHARGE.--16 years, 14.3 ft³/s (0.405 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 580 ft³/s (16.4 m³/s) Dec. 26, 1969, gage height, 7.94 ft (2.420 m); no flow many days during 1978, 1980, 1981, and 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 176 ft³/s (4.98 m³/s) Jan. 4, gage height, 4.28 ft (1.305 m); no flow part or all of many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.2	5.1	24	26	5.0	8.7	17	7.0	2.9	3.1	6.3
2	1.6	.89	15	4.9	11	5.1	5.8	15	3.2	12	2.5	2.0
3	.00	.63	1.3	8.0	72	5.2	11	14	4.8	14	1.9	3.3
4	1.8	.21	3.4	113	28	6.0	22	14	5.4	9.0	2.0	1.4
5	1.1	.10	3.7	42	11	11	11	13	14	5.0	2.6	1.3
6	.75	3.8	3.9	7.7	6.2	14	26	8.4	19	3.8	2.3	1.2
7	1.2	2.3	3.1	3.9	3.1	31	25	6.3	16	3.2	1.8	3.9
8	.53	1.3	2.7	5.7	5.2	27	22	6.0	6.3	2.8	2.0	6.0
9	.49	.63	2.8	6.9	6.1	15	22	5.9	4.2	2.7	3.7	6.0
10	.71	.98	1.7	4.6	5.8	11	21	8.4	3.4	2.8	3.7	6.0
11	.95	.71	1.5	4.8	5.8	11	23	5.9	3.6	2.6	2.2	5.8
12	.97	.23	1.5	7.6	6.4	8.8	15	4.4	2.7	2.9	4.0	5.7
13	.93	.60	1.3	4.5	6.1	7.9	11	4.6	23	2.4	1.9	5.7
14	1.2	1.6	2.3	5.4	5.5	7.0	9.4	4.4	103	2.1	1.6	5.9
15	1.7	3.3	30	4.9	5.5	6.7	8.0	4.3	24	2.2	1.5	6.1
16	1.5	3.9	51	4.5	6.3	7.1	7.7	4.3	14	2.1	4.3	6.3
17	.63	4.4	11	4.0	5.6	13	7.6	3.6	27	2.1	10	6.3
18	3.0	8.5	4.4	3.9	4.9	13	33	3.5	10	2.0	12	5.8
19	4.9	1.7	1.5	4.0	9.0	14	15	3.2	8.2	8.6	8.2	5.8
20	.17	2.7	3.1	4.4	10	13	11	3.3	6.8	45	5.2	6.8
21	.82	1.8	3.3	4.0	9.3	13	8.8	5.7	5.6	9.0	1.3	2.7
22	.64	1.9	3.5	3.6	8.7	13	7.5	4.6	4.8	3.7	1.7	5.2
23	1.8	1.5	5.3	27	7.3	11	6.5	8.7	4.5	2.6	2.9	3.0
24	4.3	1.3	4.3	12	8.3	11	6.8	11	4.2	2.6	5.4	1.9
25	4.2	1.1	4.0	9.6	5.7	8.1	12	22	3.9	1.9	9.2	7.0
26	29	.92	3.4	7.4	4.9	5.3	22	16	3.6	1.7	3.2	7.1
27	5.3	1.2	2.3	6.0	4.9	4.7	27	12	3.4	1.8	2.1	4.6
28	9.4	.95	2.7	4.7	5.1	4.3	55	12	3.8	49	2.5	1.8
29	2.8	.82	2.3	5.4	---	4.5	23	54	4.5	7.1	4.9	1.6
30	2.0	.61	2.0	7.6	---	4.5	17	17	4.8	4.8	6.1	2.0
31	1.5	---	2.1	10	---	6.0	---	13	---	3.8	6.2	---
TOTAL	87.19	51.78	185.5	366.0	293.7	317.2	500.8	325.5	348.7	218.2	122.0	134.5
MEAN	2.81	1.73	5.98	11.8	10.5	10.2	16.7	10.5	11.6	7.04	3.94	4.48
MAX	29	8.5	51	113	72	31	55	54	103	49	12	7.1
MIN	.00	.10	1.3	3.6	3.1	4.3	5.8	3.2	2.7	1.7	1.3	1.2

CAL YR 1981 TOTAL 2167.08 MEAN 5.94 MAX 63 MIN .00
WTR YR 1982 TOTAL 2951.07 MEAN 8.09 MAX 113 MIN .00

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 28...	1030	E4.7	185	6.7	.0	15.0	<1.5	20	130	39
MAR 22...	1130	12	155	6.0	6.0	14.4	<1.1	<20	13	42
MAY 19...	1030	3.5	150	6.8	12.5	9.9	E1.2	330	49	39
JUL 07...	1130	E3.2	150	6.7	16.5	9.2	E1.3	490	>2400	40
AUG 09...	1315	3.9	152	6.4	19.0	8.4	<.8	460	540	48
SEP 20...	1240	9.0	143	6.7	14.5	8.7	5.1	>24000	>2400	39

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 28...	12	2.2	11	2.4	19	--	25	16	.1
MAR 22...	13	2.3	11	2.4	23	--	26	15	.1
MAY 19...	13	1.7	8.2	2.2	18	--	23	15	.2
JUL 07...	13	1.8	9.3	2.0	20	--	22	15	.2
AUG 09...	16	1.9	8.9	2.2	22	--	21	14	.2
SEP 20...	13	1.6	7.8	3.1	22	<.5	20	14	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 28...	11	115	.010	.40	--	.35	.75	.12	1.4
MAR 22...	12	95	<.010	.30	.190	E.67	--	.18	2.7
MAY 19...	12	95	<.010	.21	--	2.70	2.9	.12	1.6
JUL 07...	13	106	.020	.20	.130	.51	.71	.18	2.6
AUG 09...	14	107	<.010	.30	E.120	.45	.75	.25	3.1
SEP 20...	11	105	.020	.40	.100	1.10	1.5	.28	3.9

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP 20...	1240	50	1	<10	450	1	20	7

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP 20...	5700	14	100	<.1	7	<1	50	5

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°12'13", long 74°03'58", Monmouth County, Hydrologic Unit 02030104, on left bank 50 ft (15 m) downstream from dam on Jumping Brook Reservoir, 0.85 mi (1.37 km) upstream from mouth, and 1.4 mi (2.3 km) west of Neptune City. Water-quality samples collected at bridge 600 ft (183 m) downstream from gage at high flows.

DRAINAGE AREA.--6.43 mi² (16.65 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 28...	1100	3.0	290	5.3	.0	15.8	E1.8	<20	7
MAR 22...	1220	--	160	--	8.0	13.4	<1.0	<20	<2
MAY 19...	1015	.87	155	5.8	14.0	9.3	E.9	40	79
JUL 07...	1215	2.3	142	5.5	20.0	8.5	E1.4	80	>2400
AUG 09...	1245	1.9	142	5.5	22.0	7.7	<.8	70	350
SEP 20...	1300	7.3	136	5.5	16.0	9.5	>9.6	490	>2400

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 28...	33	9.0	2.5	29	2.0	<1.0	30	52	.1
MAR 22...	32	8.8	2.4	13	2.1	2.0	31	19	<.1
MAY 19...	29	8.1	2.1	10	2.2	2.0	30	21	<.1
JUL 07...	30	8.3	2.3	11	1.9	3.0	26	18	<.1
AUG 09...	32	9.2	2.3	13	2.4	4.0	27	17	<.1
SEP 20...	30	8.7	2.0	7.5	3.9	1.0	30	12	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 28...	7.9	146	.010	.40	--	.40	.80	.06	2.8
MAR 22...	7.7	92	<.010	.40	.150	E.72	--	.12	3.0
MAY 19...	7.9	85	<.010	.21	.100	.50	.71	.06	3.7
JUL 07...	8.6	87	.010	.20	.180	.91	1.1	.18	4.7
AUG 09...	9.1	98	<.010	.40	E.150	.74	1.1	.15	4.8
SEP 20...	5.6	103	.010	.70	.470	2.00	2.7	.21	4.4

01407830 MANASQUAN RIVER NEAR GEORGIA, NJ

LOCATION.--Lat 40°12'36", long 74°16'41", Monmouth County, Hydrologic Unit 02040301, at bridge on Jacksons Mill Road, 0.5 mi (0.8 km) upstream from Debois Creek, 0.9 mi (1.4 km) southwest of intersection of Jacksons Mill Road with State Route 524, 1.3 mi (2.1 km) southwest of Adelphia, and 1.6 mi (2.6 km) north of Georgia.

DRAINAGE AREA.--10.6 mi^2 (27.5 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-74, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 01...	0930	9.0	300	6.9	12.0	7.1	E2.0	110	>2400	76
JAN 28...	1130	13	240	6.9	.0	14.4	E2.4	50	79	49
MAR 15...	1000	--	210	6.6	5.0	10.2	2.6	90	2	52
MAY 27...	1250	26	212	6.7	17.5	8.9	E4.7	>24000	>2400	49
JUL 08...	1330	19	230	7.0	25.0	6.9	5.2	1300	350	53
AUG 10...	1220	E13	200	6.9	23.0	7.3	3.6	700	>2400	46
SEP 21...	0920	15	230	7.0	15.5	7.1	4.9	5400	>2400	49

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 01...	24	3.9	31	5.5	21	<.1	29	58	.6
JAN 28...	14	3.5	15	4.3	10	--	38	23	.3
MAR 15...	14	4.1	14	4.0	12	--	33	16	<.1
MAY 27...	14	3.4	16	4.5	7.0	--	34	17	.3
JUL 08...	15	3.7	15	4.6	14	--	28	21	.4
AUG 10...	14	2.7	14	4.4	6.0	--	24	17	.4
SEP 21...	15	2.9	17	5.0	20	<.5	22	17	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 01...	25	182	.160	.96	--	3.10	4.1	.70	4.4
JAN 28...	21	142	.040	1.6	--	2.00	3.6	.40	2.6
MAR 15...	20	132	.020	1.6	1.50	2.80	4.4	.52	3.8
MAY 27...	22	134	.070	.90	3.10	E3.60	--	.31	4.0
JUL 08...	23	157	.120	.90	E3.70	5.00	5.9	1.60	4.8
AUG 10...	20	133	.090	1.2	E2.10	2.90	4.1	1.10	4.2
SEP 21...	20	128	.050	.30	4.90	E5.90	--	1.20	3.7

01407830 MANASQUAN RIVER NEAR GEORGIA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
01...	0930	1590	1.3	11	20	1	1	<10	110	2	<1
SEP											
21...	0920	--	--	--	30	2	--	<10	70	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
01...	20	9	<10	12	6	2800	1000	3	<10	100	73
SEP											
21...	10	--	--	16	--	2400	--	3	--	80	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
01...	<.1	<.01	5	10	<1	<1	40	56	1	3	<1.0
SEP											
21...	<.1	--	4	--	<1	--	20	--	8	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
01...	<.1	17	3.3	3.2	2.1	2.2	.4	<.1	<.1	<.1	<.1
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
01...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--

01407997 MARSH BOG BROOK AT SQUANKUM, NJ

LOCATION.--Lat 40°10'01", long 74°09'33", Monmouth County, Hydrologic Unit 02040301, at bridge on Squankum-Yellow Brook Road in Squankum, and 0.2 mi (0.3 km) upstream from mouth.

DRAINAGE AREA.--4.91 mi^2 (12.72 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-74, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 01...	1100	--	387	7.2	11.5	9.4	3.1	170	1600	85
FEB 10...	0940	5.8	205	5.7	1.0	14.0	E10	9200	79	33
MAR 15...	1050	3.3	162	6.3	5.0	10.6	E1.6	170	2	37
MAY 27...	0930	5.6	118	6.4	13.0	9.1	E2.4	1300	280	28
JUL 08...	1210	3.3	145	6.7	22.0	8.2	2.4	170	>2400	40
AUG 10...	1050	2.2	193	6.8	23.0	6.8	2.6	2400	>2400	57
SEP 21...	1040	1.6	322	6.9	15.0	8.3	4.6	790	>2400	63

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 01...	29	3.1	45	7.1	53	<.1	24	88	.2
FEB 10...	10	2.0	18	3.0	4.0	--	31	25	.1
MAR 15...	11	2.3	12	2.5	12	--	31	13	.1
MAY 27...	8.4	1.6	9.0	2.4	3.0	--	23	9.9	.1
JUL 08...	13	1.9	9.6	2.9	14	--	23	11	.1
AUG 10...	19	2.2	14	3.7	33	--	24	15	.2
SEP 21...	21	2.6	37	6.9	41	--	29	44	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 01...	14	229	.080	2.2	--	1.70	3.9	.15	6.6
FEB 10...	9.6	103	.050	.50	.600	1.80	2.3	.21	4.6
MAR 15...	11	98	<.010	.25	1.00	E2.10	--	.21	3.3
MAY 27...	10	83	.010	.20	.840	E1.60	--	.18	6.2
JUL 08...	14	105	.050	.50	E.980	2.10	2.6	.40	5.1
AUG 10...	12	125	.040	.80	E.510	1.30	2.1	.25	7.6
SEP 21...	12	178	.060	.80	2.50	2.60	3.4	.58	4.7

01407997 MARSH BOG BROOK AT SQUANKUM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 01...	1100	1950	<.1	--	30	1	0	<10	20	1	<1
SEP 21...	1040	500	.2	9.1	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 01...	20	2	<10	6	1	1200	1200	2	10	10	3
SEP 21...	--	5	<10	--	2	--	3000	--	30	--	20

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 01...	<.1	<.01	2	<10	<1	<1	30	14	2	1	<1.0
SEP 21...	--	<.01	--	<10	--	<1	--	17	--	9	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 01...	<.1	6.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
SEP 21...	<.1	6.0	2.0	<.1	.6	<.1	.2	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 01...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
SEP 21...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01408000 MANASQUAN RIVER AT SQUANKUM, NJ

LOCATION.--Lat 40°09'47", long 74°09'21", Monmouth County, Hydrologic Unit 02040301, on right bank 20 ft (6.1 m) downstream from bridge on State Highway 547 (Squankum Park Road) in Squankum, and 0.4 mi (0.6 km) downstream from Marsh Bog Brook.

DRAINAGE AREA.--43.4 mi² (112.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1931 to current year. Monthly discharge only for July 1931, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 18.82 ft (5.736 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 13, 1940, water-stage recorder at site 80 ft (24 m) upstream at same datum.

REMARKS.--Water-discharge records good. Occasional regulation from unknown source.

AVERAGE DISCHARGE.--51 years, 75.1 ft³/s (2.127 m³/s), 23.50 in/yr (597 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,940 ft³/s (83.3 m³/s) Sept. 21, 1938, gage height, 12.45 ft (3.795 m), from floodmark, site then in use, from rating curve extended above 900 ft³/s (25.5 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 8.1 ft³/s (0.23 m³/s) Aug. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	2045	*732	20.7	6.21	1.893

Minimum daily discharge, 23 ft³/s (0.65 m³/s) Oct. 5, Sept. 12, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	30	37	90	179	48	67	85	61	44	33	26
2	31	30	125	86	93	49	50	73	59	40	31	27
3	26	30	66	58	363	49	57	67	51	48	30	43
4	24	29	48	406	186	48	139	66	48	97	30	27
5	23	29	49	268	107	72	73	62	56	48	30	25
6	25	52	42	107	89	63	102	58	69	42	29	24
7	28	37	39	88	76	129	103	56	65	40	28	24
8	25	31	42	74	69	173	87	54	57	38	27	24
9	26	29	45	66	72	89	98	53	50	37	35	24
10	25	31	39	60	83	75	85	52	45	34	47	24
11	25	31	37	52	67	69	93	49	43	33	31	24
12	25	30	36	52	61	68	79	48	41	34	38	23
13	26	31	34	53	60	63	71	49	77	37	31	24
14	26	29	35	55	58	60	70	48	321	32	29	24
15	27	31	150	51	57	56	62	44	106	33	27	24
16	28	52	270	49	61	56	59	42	85	32	26	25
17	27	38	114	44	59	75	59	41	214	31	27	25
18	27	67	80	46	55	64	147	40	96	29	27	24
19	49	43	64	50	62	58	87	39	76	29	26	23
20	29	44	53	49	72	54	72	39	68	75	26	29
21	27	44	48	46	65	53	65	51	59	139	26	36
22	26	36	49	44	64	53	60	47	55	42	24	36
23	26	34	51	77	58	51	56	53	54	35	25	37
24	45	34	53	148	55	50	55	61	49	34	34	29
25	31	33	47	86	53	49	52	94	45	31	57	27
26	107	32	44	64	48	50	68	67	43	30	34	26
27	46	32	45	56	48	47	155	52	41	30	28	38
28	66	32	47	51	48	45	303	57	47	106	28	32
29	39	31	44	50	---	45	130	222	48	64	25	34
30	34	31	41	51	---	46	97	90	57	39	24	37
31	32	---	40	88	---	48	---	69	---	35	25	---
TOTAL	1025	1063	1914	2565	2368	1955	2701	1928	2186	1418	938	845
MEAN	33.1	35.4	61.7	82.7	84.6	63.1	90.0	62.2	72.9	45.7	30.3	28.2
MAX	107	67	270	406	363	173	303	222	321	139	57	43
MIN	23	29	34	44	48	45	50	39	41	29	24	23
CFSM	.76	.82	1.42	1.91	1.95	1.45	2.07	1.43	1.68	1.05	.70	.65
IN.	.88	.91	1.64	2.20	2.03	1.68	2.32	1.65	1.87	1.22	.80	.72

CAL YR 1981 TOTAL 17440 MEAN 47.8 MAX 270 MIN 20 CFSM 1.10 IN 14.95
WTR YR 1982 TOTAL 20906 MEAN 57.3 MAX 406 MIN 23 CFSM 1.32 IN 17.92

01408070 NORTH BRANCH METEDECONK RIVER NEAR WYCKOFF MILLS, NJ

LOCATION.--Lat 40°10'52", long 74°17'17", Monmouth County, Hydrologic Unit 02040301, at bridge on Jackson Mills Road in Wyckoff Mills, 0.4 mi (0.7 km) southwest of Georgia, 3.1 mi (4.9 km) southwest of Adelphia, and 4.0 mi (6.0 km) upstream from outflow of Aldrich Lake.

DRAINAGE AREA.--5.52 mi^2 (14.30 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB 02...	1130	14	80	4.4	.0	12.8	E1.7	20	11
MAR 15...	0910	4.2	65	5.7	3.5	10.6	<1.1	20	2
MAY 27...	1340	4.0	65	6.2	14.0	8.9	E1.5	40	79

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB 02...	14	4.1	.8	3.5	.7	2.0	--	16	5.6
MAR 15...	20	6.5	1.0	3.8	.8	5.0	--	16	6.0
MAY 27...	18	6.0	.7	4.4	.7	7.0	<.5	10	6.7

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 02...	.1	6.3	54	E.010	<.10	--	.33	.09	6.4
MAR 15...	.1	8.1	62	<.010	<.10	.220	E1.40	.12	5.7
MAY 27...	<.1	8.9	70	<.010	.10	<.050	E.40	.12	8.9

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY 27...	1340	190	1	<10	40	<1	10	5

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY 27...	1400	5	20	<.1	2	<1	40	7

01408120 NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ

LOCATION.--Lat 40°05'30", long 74°09'10", Ocean County, Hydrologic Unit 02040301, on downstream left bank at bridge on State Route 549, 1.0 mi (1.6 km) upstream from confluence with South Branch Metedeconk River, and 2.3 mi (3.7 km) east of Lakewood.

DRAINAGE AREA.--34.9 mi² (90.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3.89 ft (1.186 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1977 gage located on upstream side of bridge.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--10 years, 63.6 ft³/s (1.801 m³/s), 24.75 in/yr (629 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft³/s (38.7 m³/s) Nov. 8, 1977, gage height, 9.28 ft (2.829 m), from rating extended above 500 ft³/s (14.2 m³/s); minimum, 11 ft³/s (0.31 m³/s) many days in August and September, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 28	2300	*312	8.84	6.47	1.972

Minimum discharge, 12 ft³/s (0.34 m³/s) Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	25	24	57	77	32	43	70	53	49	38	19
2	17	23	67	72	82	32	38	50	44	38	33	21
3	17	23	63	53	123	33	38	44	37	38	30	31
4	15	21	46	115	141	33	76	42	33	66	28	26
5	14	21	43	184	108	44	69	40	40	51	27	21
6	14	29	36	126	86	49	89	37	54	38	27	19
7	26	30	30	88	55	79	96	36	53	32	27	18
8	18	27	29	54	47	105	72	34	47	30	25	18
9	15	25	31	42	46	89	66	35	39	28	28	18
10	14	23	29	36	54	67	63	33	33	25	32	17
11	14	23	26	37	50	50	56	30	29	25	29	16
12	14	22	26	30	44	45	54	29	27	28	30	16
13	14	21	26	28	41	43	49	30	47	30	28	16
14	14	20	25	31	39	41	46	30	173	24	25	16
15	14	20	76	32	38	38	42	29	143	24	22	16
16	14	29	125	33	39	36	38	27	98	23	20	17
17	14	33	122	35	39	48	37	27	104	21	27	18
18	15	49	83	34	37	47	78	26	100	20	29	17
19	32	41	56	32	41	42	76	25	69	29	22	16
20	28	35	38	31	51	38	59	27	51	47	20	27
21	20	36	32	31	48	37	46	53	41	56	20	35
22	18	29	30	30	47	37	41	41	36	40	19	38
23	18	26	31	48	42	35	37	44	33	30	21	34
24	30	24	33	89	39	34	35	52	30	26	26	30
25	29	23	32	66	37	33	34	62	28	22	45	25
26	77	21	30	47	34	33	41	62	27	20	37	22
27	63	21	30	38	33	32	90	47	26	20	28	30
28	63	21	31	35	32	30	136	43	45	146	25	31
29	43	21	30	34	---	29	159	128	188	254	21	26
30	32	20	28	34	---	29	108	131	93	104	19	29
31	27	---	27	44	---	31	---	84	---	47	19	---
TOTAL	755	782	1335	1646	1550	1351	1912	1448	1821	1431	827	683
MEAN	24.4	26.1	43.1	53.1	55.4	43.6	63.7	46.7	60.7	46.2	26.7	22.8
MAX	77	49	125	184	141	105	159	131	188	254	45	38
MIN	12	20	24	28	32	29	34	25	26	20	19	16
CFSM	.70	.75	1.24	1.52	1.59	1.25	1.83	1.34	1.74	1.32	.77	.65
IN.	.80	.83	1.42	1.75	1.65	1.44	2.04	1.54	1.94	1.53	.88	.73

CAL YR 1981 TOTAL 12133 MEAN 33.2 MAX 129 MIN 11 CFSM .95 IN 12.93
WTR YR 1982 TOTAL 15541 MEAN 42.6 MAX 254 MIN 12 CFSM 1.22 IN 16.56

01408500 TOMS RIVER NEAR TOMS RIVER, NJ
(National stream quality accounting network station)

LOCATION.--Lat 39°59'10", long 74°13'29", Ocean County, Hydrologic Unit 02040301, on left bank 1.9 mi (3.1 km) downstream from Union Branch, and 2.6 mi (4.2 km) northwest of Toms River.

DRAINAGE AREA.--124 mi² (321 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October, November 1928, published in WSP 1302.

REVISED RECORDS.--WSP 1702: 1938. WDR NJ-76-1: 1975(M). WDR NJ-77-1: 1976.

GAGE.--Water-stage recorder. Datum of gage is 8.10 ft (2.469 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--54 years, 215 ft³/s (6.089 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s (56.6 m³/s) Sept. 23, 1938, gage height, 12.50 ft (3.810 m), from floodmark, from rating curve extended above 1,500 ft³/s (42 m³/s); minimum, 46 ft³/s (1.30 m³/s) many days in August and September 1966, gage height, 2.70 ft (0.823 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 539 ft³/s (15.3 m³/s) July 30, gage height, 6.67 ft (2.033 m); minimum, 56 ft³/s (1.59 m³/s) Oct. 1, gage height, 2.84 ft (0.866 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	135	93	155	195	140	151	406	380	208	339	91
2	65	120	133	180	219	139	154	323	287	198	228	91
3	73	110	156	184	285	139	154	251	215	190	176	105
4	71	102	164	244	328	138	177	196	186	201	150	109
5	65	99	165	306	363	146	189	166	180	199	140	101
6	64	103	153	342	369	160	232	165	185	184	134	96
7	69	111	136	374	319	195	258	172	189	162	122	86
8	70	111	129	327	248	233	260	172	187	147	117	84
9	67	103	124	250	212	253	261	172	177	137	111	82
10	66	99	121	204	205	270	249	181	161	132	120	81
11	67	89	114	168	199	243	231	179	150	125	120	82
12	67	92	109	161	190	210	212	168	144	126	122	82
13	71	90	106	148	182	193	195	154	156	149	121	78
14	70	91	103	146	174	180	185	150	290	138	116	75
15	68	91	149	150	169	166	176	148	320	128	110	75
16	68	97	222	151	166	158	167	144	381	121	99	76
17	70	106	257	141	165	164	168	137	416	119	106	76
18	76	135	301	148	162	170	197	132	436	115	105	77
19	83	130	308	143	163	168	207	129	466	110	96	77
20	90	128	282	143	174	166	234	126	397	120	91	84
21	84	130	185	144	180	161	231	141	300	130	97	104
22	77	123	166	142	181	155	216	170	231	139	97	117
23	75	110	154	159	173	150	192	179	196	129	95	120
24	87	104	154	201	167	145	173	186	177	120	102	118
25	100	100	152	190	160	140	163	206	162	112	129	113
26	142	100	147	214	152	140	162	213	155	102	144	105
27	154	98	141	201	147	141	200	212	148	102	135	106
28	183	97	137	180	144	138	267	198	139	167	123	111
29	176	95	135	165	---	134	335	258	154	320	110	110
30	166	89	131	158	---	130	437	307	202	456	102	103
31	152	---	129	161	---	133	---	415	---	479	94	---
TOTAL	2796	3188	4916	5980	5791	5198	6433	6156	7167	5265	3951	2815
MEAN	90.2	106	159	193	207	168	214	199	239	170	127	93.8
MAX	183	135	308	374	369	270	437	415	466	479	339	120
MIN	60	89	93	141	144	130	151	126	139	102	91	75
CFSM	.73	.86	1.28	1.56	1.67	1.36	1.73	1.61	1.93	1.37	1.02	.76
IN.	.84	.96	1.47	1.79	1.74	1.56	1.93	1.85	2.15	1.58	1.19	.84

CAL YR 1981 TOTAL 46317 MEAN 127 MAX 331 MIN 55 CFSM 1.02 IN 13.89
WTR YR 1982 TOTAL 59656 MEAN 163 MAX 479 MIN 60 CFSM 1.32 IN 17.90

01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1974 to September 1981 (discontinued).
WATER TEMPERATURES: November 1963 to May 1966, November 1974 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 24...	1000	108	73	5.1	6.0	1.5	11.5	1.3	K12	440
JAN 19...	1030	152	77	4.5	.5	1.7	16.0	2.1	K2	110
APR 01...	0930	150	65	5.0	10.0	13	10.8	--	K7	1900
MAY 25...	1045	208	59	5.0	14.0	3.0	9.4	.7	K540	3500
JUL 08...	1000	149	61	3.7	21.0	2.5	7.8	3.0	30	2500
SEP 08...	1130	87	65	4.4	18.0	2.2	9.0	.9	<34	610

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV 24...	13	2.9	1.4	5.6	1.0	2.0	13	8.1	<.1	5.4
JAN 19...	11	2.5	1.1	5.0	1.1	<1.0	12	7.3	<.1	5.6
APR 01...	10	2.5	1.0	4.9	.8	2.0	11	7.3	<.1	3.4
MAY 25...	10	2.7	.9	4.2	.9	4.0	9.0	7.2	<.1	4.0
JUL 08...	9	2.0	1.0	4.7	.4	1.0	8.0	7.5	<.1	4.8
SEP 08...	9	2.3	.9	5.5	.9	4.0	9.0	8.8	<.1	4.0

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
NOV 24...	51	--	--	--	.46	.090	.34	.030	.030	.010
JAN 19...	48	10	4.1	100	.47	.070	.29	.020	.010	<.010
APR 01...	48	3	1.2	100	.42	.070	.30	.020	<.010	<.010
MAY 25...	49	9	5.1	100	.30	.190	.60	.060	.010	<.010
JUL 08...	55	5	2.0	100	--	--	--	--	--	--
SEP 08...	40	12	2.8	92	.48	.060	.60	.030	<.030	.030

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
NOV 24...	1000	1	1	<100	34	<1	<1	10	<10	2
JAN 19...	1030	1	0	100	32	1	<1	10	<10	<1
MAY 25...	1045	1	1	<100	29	5	2	10	<10	5
SEP 08...	1130	1	1	<100	<100	2	1	10	10	2

01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
NOV 24...	2	7	6	530	200	5	<1	50	50	<.1
JAN 19...	<1	6	2	570	350	6	<1	50	49	.1
MAY 25...	5	7	3	1300	280	10	4	40	32	.3
SEP 08...	1	4	4	910	120	5	1	30	30	<.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 24...	<.1	6	1	<1	<1	<1	<1	60	22
JAN 19...	.1	5	1	<1	<1	<1	<1	50	25
MAY 25...	<.1	5	2	<1	<1	<1	<1	80	18
SEP 08...	<.1	4	4	<1	<1	<1	<1	20	20

01409095 OYSTER CREEK NEAR BROOKVILLE, NJ

LOCATION.--Lat 39°47'54", long 74°15'02", Ocean County, Hydrologic Unit 02040301, on left bank 100 ft (30 m) upstream from bridge on State Highway 532, 1.5 mi (2.4 km) downstream from reservoir at Wells Mill, and 3.2 mi (5.1 km) northeast of Brookville.

DRAINAGE AREA.--7.43 mi^2 (19.24 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 24.74 ft (7.541 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow probably contains considerable ground-water inflow from other surface drainage basins. Some minor regulation possible from small reservoirs and cranberry bogs upstream.

AVERAGE DISCHARGE.--17 years, 28.4 ft^3/s (0.804 m^3/s), 51.84 in/yr (1,317 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 284 ft^3/s (8.04 m^3/s) July 4, 1978, gage height, 7.93 ft (2.417 m); minimum, 6.8 ft^3/s (0.19 m^3/s) Aug. 13, 1980, revised.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft^3/s (1.87 m^3/s) Jan. 5, gage height, 5.00 ft (1.524 m), no peak above base of 75 ft^3/s (2.12 m^3/s); minimum daily discharge, 15 ft^3/s (0.425 m^3/s) Oct. 10.

REVISIONS.--Revised daily discharges for water year 1981, in cubic feet per second, are given below. The figures supersede those published in the report for 1981.

July	1	21
	2	21
	3	21
	4	21
	5	25
	6	29
	7	27
	8	27
	9	26
	10	24
	11	23
	12	20
	13	20
	14	21
	15	21
	16	20
	17	19
July	18	19
	19	19
	20	22
	21	24
	22	26
	23	26
	24	24
	25	22
	26	19
	27	19
	28	18
	29	17
	30	17
	31	18
August	1	18
	2	19
	3	19
August	4	18
	5	18
	6	18
	7	18
	8	18
	9	19
	10	21
	11	21
	12	23
	13	21
	14	19
	15	20
	16	21
	17	23
	18	20
	19	19
	20	18
August	21	18
	22	17
	23	17
	24	17
	25	17
	26	17
	27	17
	28	17
	29	17
	30	17
	31	17
September	1	17
	2	17
	21	16

MONTH	TOTAL	MEAN	MAX	MIN	CFSM	IN
July...............1981	676	21.8	29	17	2.93	3.38
August.............1981	579	18.7	23	17	2.52	2.90
September..........1981	553	18.4	26	16	2.48	2.77
WTR YR.............1981	8,060	22.1	49	16	2.97	40.35

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	20	18	30	35	21	24	22	20	23	21	17
2	16	23	27	43	37	21	21	20	20	20	20	17
3	16	20	24	29	46	22	22	20	18	16	21	18
4	16	20	20	43	48	22	27	19	18	17	21	17
5	16	18	20	57	32	27	23	19	20	17	21	16
6	16	18	20	33	27	26	32	20	21	17	23	16
7	16	18	18	27	25	35	38	20	21	17	21	17
8	16	17	18	25	24	41	28	20	21	17	20	18
9	16	17	18	24	24	31	24	20	20	19	20	18
10	15	17	18	22	26	25	25	20	19	19	20	18
11	16	17	17	21	25	24	22	20	19	18	20	18
12	16	17	18	21	24	24	21	20	18	19	20	18
13	16	17	17	21	23	23	21	20	19	22	20	17
14	16	17	17	22	23	22	20	20	37	20	20	17
15	16	17	35	20	23	21	17	19	29	18	20	17
16	16	18	49	19	24	21	19	19	20	17	18	17
17	16	18	36	19	24	24	19	19	21	17	18	17
18	16	22	26	19	23	23	26	19	19	18	17	17
19	18	20	22	20	25	22	25	18	19	18	18	17
20	17	18	21	19	29	21	22	18	22	23	18	17
21	16	18	20	19	26	21	21	21	24	26	17	18
22	16	17	19	19	25	21	20	22	22	24	16	19
23	16	17	19	25	23	23	20	28	20	25	18	18
24	18	17	20	41	22	22	19	30	19	25	19	17
25	18	17	19	33	22	21	17	32	18	25	24	16
26	36	17	19	24	21	21	21	31	18	23	20	17
27	29	17	19	22	21	20	32	24	18	23	17	19
28	25	17	19	20	21	20	39	21	18	23	17	17
29	25	17	19	19	---	20	33	22	21	24	18	17
30	23	16	18	20	---	20	25	21	27	21	17	17
31	22	---	18	27	---	21	---	22	---	21	17	---
TOTAL	566	539	668	803	748	726	723	666	626	632	597	519
MEAN	18.3	18.0	21.5	25.9	26.7	23.4	24.1	21.5	20.9	20.4	19.3	17.3
MAX	36	23	49	57	48	41	39	32	37	26	24	19
MIN	15	16	17	19	21	20	17	18	18	16	16	16
CFSM	2.46	2.42	2.89	3.49	3.59	3.15	3.24	2.89	2.81	2.75	2.60	2.33
IN.	2.83	2.70	3.34	4.02	3.74	3.63	3.62	3.33	3.13	3.16	2.99	2.60

CAL YR 1981 TOTAL 7468.9 MEAN 20.5 MAX 49 MIN 4.4 CFSM 2.76 IN 37.39
WTR YR 1982 TOTAL 7813.0 MEAN 21.4 MAX 57 MIN 15 CFSM 2.88 IN 39.12

01409280 WESTECUNK CREEK AT STAFFORD FORGE, NJ

LOCATION.--Lat 39°40'00", long 74°19'12", Ocean County, Hydrologic Unit 02040301, 75 ft (22.9 m) downstream from dam, 0.2 mi (0.3 km) south of Stafford Forge, 1.2 mi (1.9 km) downstream from Log Swamp Branch, and 2.0 mi (3.2 km) west of Staffordville.

DRAINAGE AREA.--16.0 mi^2 (41.4 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year. Occasional low-flow measurements, water years 1969-73, at site 400 ft (122 m) downstream.

GAGE.--Water-stage recorder and wooden control until Aug. 5, 1981. On Aug. 6, 1981, gage moved downstream of bridge and has a natural riffle control. Datum of gage is 6.36 ft (1.939 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 6, 1981, water-stage recorder at site 50 ft (15.2 m) upstream at datum 9.42 ft (2.87 m) higher.

REMARKS.--Water-discharge records fair except those for period of no gage-height record, Dec. 20 to Jan. 25, which are poor. Flow regulated by dam 75 ft (22.9 m) upstream.

AVERAGE DISCHARGE.--9 years, 33.1 ft^3/s (0.937 m^3/s), 28.09 in/yr (713 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 256 ft^3/s (7.25 m^3/s) July 4, 1978, gage height, 3.70 ft (1.128 m); no flow part of May 17, 1974, Sept. 7, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 75 ft^3/s (2.04 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 7	1015	*108	3.06	11.69	3.563

Minimum daily discharge, 14 ft^3/s (0.40 m^3/s) Sept. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	23	20	25	33	21	23	30	26	52	19	21
2	18	23	27	43	32	21	21	28	25	39	19	21
3	18	22	26	30	42	21	21	27	22	36	19	23
4	17	21	23	38	44	21	25	27	23	44	19	22
5	17	21	24	52	36	24	21	26	24	37	19	21
6	17	22	23	38	32	26	31	25	26	30	24	21
7	17	21	20	30	29	35	46	25	25	24	24	21
8	16	21	21	27	27	40	30	25	24	24	22	20
9	16	21	21	25	27	35	31	26	23	25	21	20
10	16	21	16	23	27	31	29	26	23	22	21	21
11	16	21	18	22	26	28	27	24	22	21	20	21
12	16	20	20	22	24	28	25	23	22	21	19	21
13	16	20	18	22	25	26	24	23	25	22	20	21
14	16	20	19	23	23	25	24	23	40	21	19	21
15	17	20	37	21	23	23	23	23	35	20	19	21
16	17	21	48	20	23	24	23	23	30	20	19	21
17	17	21	39	19	23	26	22	22	28	20	20	21
18	18	26	35	20	25	24	33	22	27	19	25	21
19	19	23	32	21	27	23	28	22	27	19	25	21
20	17	22	28	20	30	23	26	22	26	27	22	21
21	17	21	26	20	28	23	28	24	25	35	21	21
22	17	20	25	20	27	22	24	24	25	26	20	22
23	17	20	23	22	24	21	22	27	24	22	20	22
24	19	20	21	41	23	21	21	28	23	22	23	21
25	20	19	19	35	23	21	21	29	23	20	27	21
26	45	19	20	29	21	21	24	28	22	19	27	14
27	42	19	19	27	21	20	36	26	22	18	24	14
28	34	19	20	26	21	19	43	25	22	19	23	18
29	30	18	19	26	---	19	37	26	27	21	21	18
30	26	18	18	26	---	20	33	25	58	20	21	16
31	25	---	18	26	---	21	---	27	---	20	21	---
TOTAL	630	623	743	839	766	753	822	781	794	785	663	608
MEAN	20.3	20.8	24.0	27.1	27.4	24.3	27.4	25.2	26.5	25.3	21.4	20.3
MAX	45	26	48	52	44	40	46	30	58	52	27	23
MIN	16	18	16	19	21	19	21	22	22	18	19	14
CFSM	1.27	1.30	1.50	1.69	1.71	1.52	1.71	1.58	1.66	1.58	1.34	1.27
IN.	1.46	1.45	1.73	1.95	1.78	1.75	1.91	1.82	1.85	1.83	1.54	1.41

CAL YR 1981 TOTAL 9253.1 MEAN 25.4 MAX 48 MIN 1.1 CFSM 1.59 IN 21.51
WTR YR 1982 TOTAL 8807.0 MEAN 24.1 MAX 58 MIN 14 CFSM 1.51 IN 20.47

01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ

LOCATION.--Lat 39°44'25", long 74°43'37", Burlington County, Hydrologic Unit 02040301, at bridge on U.S. Route 206 in Atsion, at outlet of Atsion Lake, and 0.2 mi (0.3 km) upstream from Wesickaman Creek.

DRAINAGE AREA.--26.7 mi² (69.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB										
01...	1130	66	58	4.2	4.5	11.6	E1.6	<20	<2	7
MAR										
25...	0900	36	47	4.9	7.5	11.4	E1.7	<20	<2	8
MAY										
17...	1300	26	40	4.3	20.0	9.7	E2.0	20	2	6
JUL										
06...	0920	45	36	4.7	22.0	8.8	<.7	<20	27	7
AUG										
11...	0850	18	33	5.1	24.0	8.2	<.1	<20	4	6
SEP										
16...	1230	16	38	5.3	18.0	9.4	E2.7	<20	2	6

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
01...	1.6	.8	2.4	.7	<1.0	--	8.4	4.8	.1
MAR									
25...	1.7	.8	2.5	.6	<1.0	--	7.8	4.2	<.1
MAY									
17...	1.3	.6	2.3	.6	1.0	<.5	7.0	4.4	<.1
JUL									
06...	1.8	.7	2.5	.6	1.0	--	4.0	4.6	<.1
AUG									
11...	1.7	.5	2.4	.3	2.0	--	5.0	3.5	<.1
SEP									
16...	1.3	.7	2.0	.3	3.0	<.5	5.0	3.6	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
01...	3.6	33	<.010	.25	--	.88	1.1	.06	9.9
MAR									
25...	2.3	24	<.010	.20	<.050	E.45	--	.06	4.2
MAY									
17...	2.0	26	<.010	.10	.100	.20	.30	.06	5.3
JUL									
06...	4.9	47	.020	.20	.050	.95	1.1	.12	14
AUG									
11...	4.4	30	<.010	.10	.150	.54	.64	.09	9.3
SEP									
16...	2.6	24	<.010	<.07	.050	.31	--	.09	4.1

01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
17...	1300	170	1	<10	20	<1	10	7
SEP								
16...	1230	60	1	<10	20	1	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
17...	800	8	30	.1	6	<1	30	4
SEP								
16...	1800	13	20	<.1	2	<1	50	14

01409400 MULLICA RIVER NEAR BATSTO, NJ

LOCATION.--Lat 39°40'28", long 74°39'55", Atlantic County, Hydrologic Unit 02040301, on right bank 2.4 mi (3.9 km) upstream from Sleeper Branch, and 2.5 mi (4.0 km) north of Batsto.

DRAINAGE AREA.--46.1 mi² (119.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1957 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1958(M), 1960(M), 1967-68(M).

GAGE.--Water-stage recorder. Datum of gage is 11.93 ft (3.636 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for periods of no gage-height record, Jan. 13 to Feb. 16, which are fair. Some regulation from upstream cranberry bogs and Atsion Lake. Diversions from Sleeper Branch enter river upstream of gage.

AVERAGE DISCHARGE.--25 years, 110 ft³/s (3.115 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft³/s (52.1 m³/s) Feb. 26, 1975, gage height, 6.14 ft (1.871 m); minimum, 7.0 ft³/s (0.20 m³/s) Sept. 6-8, 1966, gage height, 0.28 ft (0.085 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 420 ft³/s (11.9 m³/s) Apr. 30, gage height, 3.50 ft (1.067 m); minimum, 22 ft³/s (0.62 m³/s) Sept. 19, 20, gage height, 0.42 ft (0.128 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	77	57	99	120	90	65	318	118	140	36	46
2	41	76	82	112	140	88	50	262	118	129	34	48
3	39	74	94	111	160	87	54	220	109	112	34	34
4	37	70	95	145	195	86	66	184	99	118	33	29
5	36	66	99	218	240	96	63	161	94	109	32	29
6	35	65	96	231	230	99	129	117	89	92	31	28
7	36	65	87	239	200	123	177	98	82	79	31	26
8	35	64	84	218	180	162	167	103	79	69	30	26
9	33	61	80	187	160	171	138	102	74	62	30	25
10	33	59	73	153	150	172	118	95	72	59	32	25
11	35	56	68	126	140	165	113	86	68	55	31	25
12	36	54	65	110	132	155	106	91	64	53	32	25
13	34	52	61	103	128	144	102	110	73	49	31	24
14	32	50	59	99	120	133	100	102	115	46	29	24
15	31	50	101	98	118	121	96	86	142	45	29	24
16	31	57	161	96	113	113	93	78	172	49	28	24
17	31	61	207	95	111	113	90	73	174	46	29	23
18	31	79	208	92	110	111	111	69	160	43	32	23
19	35	86	199	90	114	107	113	66	124	42	29	23
20	34	95	175	90	124	102	108	64	93	42	28	26
21	32	107	145	91	131	99	105	68	90	42	28	29
22	32	97	137	92	135	97	101	68	83	35	29	29
23	32	88	123	100	130	92	96	77	77	37	32	31
24	37	84	122	112	123	87	91	85	70	35	41	30
25	38	76	116	120	115	83	86	94	65	34	43	29
26	64	137	108	125	105	80	93	102	61	33	43	29
27	70	138	102	120	99	77	127	105	53	32	41	35
28	103	68	97	115	94	74	207	104	47	34	41	35
29	160	60	92	110	---	70	268	101	79	38	40	34
30	134	56	85	106	---	68	407	101	146	39	41	33
31	81	---	83	108	---	73	---	109	---	39	43	---
TOTAL	1474	2228	3361	3911	3917	3338	3640	3499	2890	1837	1043	871
MEAN	47.5	74.3	108	126	140	108	121	113	96.3	59.3	33.6	29.0
MAX	160	138	208	239	240	172	407	318	174	140	43	48
MIN	31	50	57	90	94	68	50	64	47	32	28	23

CAL YR 1981 TOTAL 24010 MEAN 65.8 MAX 208 MIN 25
WTR YR 1982 TOTAL 32009 MEAN 87.7 MAX 407 MIN 23

393825074393500 MULLICA RIVER AT PLEASANT MILLS, NJ

LOCATION.--Lat 39°38'25", long 74°39'35", Burlington County, Hydrologic Unit 02040301, at bridge at Pleasant Mills, 0.3 mi (0.5 km) upstream from confluence with outflow from Nescochague Lake, and 0.6 mi (1.0 km) southwest of Batsto.

DRAINAGE AREA.--127 mi^2 (329 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB 01...	1040	75	4.3	2.5	11.8	<.9	20	7	11
MAR 25...	1015	58	4.5	7.0	10.6	<1.2	<20	<2	11
MAY 25...	0920	48	4.5	12.0	9.8	E1.6	20	220	11
JUL 06...	1040	45	4.8	20.0	8.3	<.7	<20	240	8
AUG 11...	1010	37	5.9	22.0	7.2	<.8	20	240	8
SEP 16...	1130	44	6.3	16.0	7.8	E2.6	<20	6	8

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 01...	2.4	1.2	3.1	.9	<1.0	--	12	6.3	.1
MAR 25...	2.5	1.2	3.2	1.0	<1.0	--	11	5.9	<.1
MAY 25...	2.5	1.1	4.2	1.0	3.0	<.5	9.0	5.5	<.1
JUL 06...	1.9	.9	3.2	.5	2.0	--	6.0	5.7	<.1
AUG 11...	1.7	.9	4.7	.6	3.0	--	5.0	5.0	<.1
SEP 16...	1.5	1.0	3.0	.8	4.0	--	6.0	5.3	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 01...	3.9	44	<.010	.40	--	.33	.73	.06	5.3
MAR 25...	2.1	36	<.010	.30	<.050	E.35	--	.06	5.4
MAY 25...	3.7	49	.010	.20	.080	E.70	--	.31	8.9
JUL 06...	4.7	49	.020	.10	.060	.62	.72	.12	11
AUG 11...	4.5	42	<.010	.10	.100	.39	.49	.09	6.6
SEP 16...	4.1	28	<.010	<.10	<.050	.38	.48	.09	3.3

MULLICA RIVER BASIN

393825074393500 MULLICA RIVER AT PLEASANT MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
25...	0920	140	1	<10	40	2	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
25...	2400	10	20	<.1	4	<1	30	9

01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ

LOCATION.--Lat 39°38'02", long 74°43'05", Atlantic County, Hydrologic Unit 02040301, at bridge on Chestnut Road in Wescoatville, 1.1 mi (1.8 km) southwest of Nesco, 1.7 mi (2.7 km) upstream from Norton Branch, and 3.8 mi (6.1 km) southwest of Batsto.

DRAINAGE AREA.--9.60 mi² (24.86 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB 16...	1235	8.6	124	6.6	9.5	5.6	3.3	<2	<2	22
MAR 18...	1210	7.4	151	6.8	9.0	4.3	--	140	240	32
JUN 02...	1330	7.0	173	7.0	20.0	4.8	11	79	>2400	20
JUL 28...	1245	6.4	139	6.7	22.5	3.2	5.5	--	--	16
AUG 10...	1240	4.6	153	6.6	22.5	4.2	3.3	70	130	18
SEP 22...	1215	4.3	186	6.7	16.0	3.4	7.2	1600	>2400	24

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 16...	5.4	2.1	7.7	3.0	16	--	15	10	.2
MAR 18...	8.4	2.6	8.2	3.3	9.0	--	19	13	.2
JUN 02...	4.9	1.8	15	2.9	2.0	<.5	15	12	.3
JUL 28...	3.9	1.6	18	3.2	10	--	11	16	.3
AUG 10...	4.4	1.8	17	3.8	4.0	--	11	17	.3
SEP 22...	6.3	2.0	22	4.6	8.0	--	14	22	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 16...	6.1	70	--	1.4	2.00	3.00	4.4	2.40	4.9
MAR 18...	7.6	86	.020	.70	3.20	E4.30	--	2.10	5.4
JUN 02...	8.4	85	.100	.91	E5.40	6.40	7.3	3.50	10
JUL 28...	6.6	94	.060	2.4	.700	2.80	5.2	3.40	6.3
AUG 10...	6.2	93	.080	3.0	E1.60	2.50	5.5	4.00	4.8
SEP 22...	9.7	111	.200	4.5	2.20	2.40	6.9	4.30	7.4

01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
02...	1330	20	1	<10	60	<1	10	13

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
02...	10000	15	40	.2	1	<1	60	<1

01409500 BATSTO RIVER AT BATSTO, NJ

LOCATION.--Lat 39°38'33", long 74°39'00", Burlington County, Hydrologic Unit 02040301, on right bank 30 ft (9 m) downstream from bridge on State Highway 542 at Batsto, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--70.5 mi² (182.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for April to September 1939, published in WSP 1302.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1432: 1930, 1933, 1936, 1938.

GAGE.--Water-stage recorder. Concrete control since Oct. 12, 1939; prior to Mar. 24, 1939, wooden control at site 50 ft (15 m) downstream. Datum of gage is 1.4 ft (0.43 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Considerable regulation at times by sluice gates prior to December 1954 and by automatic Bascule and sluice gates since July 1959 at Batsto Lake, 300 ft (91 m) upstream, capacity, about 60,000,000 gal (227,000 m³).

AVERAGE DISCHARGE.--55 years, 125 ft³/s (3.54 m³/s), 24.08 in/yr (612 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,310 ft³/s (37.1 m³/s) Aug. 24, 1933; maximum gage height, 8.7 ft (2.65 m) Aug. 20, 1939, from floodmark; minimum daily discharge, 5.7 ft³/s (0.16 m³/s) Oct. 4, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 343 ft³/s (9.71 m³/s) Apr. 30, gage height, 3.38 ft (1.030 m); minimum daily, 28 ft³/s (0.79 m³/s) Oct. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	98	67	105	123	94	92	270	128	191	61	55
2	62	92	85	107	142	94	90	215	124	192	59	55
3	64	83	84	113	172	94	92	176	114	171	58	56
4	62	80	100	128	201	96	99	150	103	153	58	57
5	61	76	98	161	240	100	103	133	100	136	57	55
6	59	78	96	208	225	105	116	124	100	123	55	53
7	59	78	94	212	195	121	123	110	97	107	57	50
8	61	74	90	189	168	139	142	107	95	97	55	50
9	59	70	86	172	152	165	143	104	87	93	54	50
10	60	67	81	152	139	169	136	101	87	92	55	49
11	60	68	81	130	133	154	128	99	83	86	55	49
12	61	67	79	104	126	143	120	97	80	83	54	48
13	61	70	79	97	120	132	111	91	94	79	55	47
14	61	61	79	95	114	128	106	88	121	76	56	45
15	62	61	113	95	109	119	102	84	160	74	52	45
16	57	66	137	94	110	115	95	81	190	75	51	45
17	55	72	169	91	111	115	100	78	181	74	52	45
18	54	81	203	89	115	113	110	76	163	71	55	46
19	55	88	192	88	115	113	116	76	145	67	53	46
20	54	91	165	88	119	103	112	75	126	66	52	45
21	53	87	150	90	115	103	107	78	114	66	52	52
22	51	84	137	89	126	98	102	83	107	64	51	59
23	52	80	121	101	124	96	99	93	98	65	51	56
24	56	75	117	116	115	92	93	104	87	68	62	55
25	61	72	115	120	111	90	87	112	79	62	69	56
26	75	70	111	121	107	88	106	124	75	61	68	52
27	123	69	107	118	100	83	132	137	73	60	64	55
28	98	68	103	113	96	81	179	136	69	60	61	59
29	100	66	96	108	---	87	278	127	103	64	57	62
30	92	66	94	104	---	85	323	128	149	67	56	56
31	28	---	88	107	---	83	---	129	---	63	55	---
TOTAL	1978	2258	3417	3705	3823	3398	3742	3586	3332	2806	1750	1553
MEAN	63.8	75.3	110	120	137	110	125	116	111	90.5	56.5	51.8
MAX	123	98	203	212	240	169	323	270	190	192	69	62
MIN	28	61	67	88	96	81	87	75	69	60	51	45
CFSM	.91	1.07	1.56	1.70	1.94	1.56	1.77	1.65	1.57	1.28	.80	.74
IN.	1.04	1.19	1.80	1.95	2.02	1.79	1.97	1.89	1.76	1.48	.92	.82

CAL YR 1981 TOTAL 29637 MEAN 81.2 MAX 203 MIN 28 CFSM 1.15 IN 15.64
WTR YR 1982 TOTAL 35348 MEAN 96.8 MAX 323 MIN 28 CFSM 1.37 IN 18.65

01409500 BATSTO RIVER AT BATSTO, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1925, 1956, 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB									
01...	1000	119	51	4.6	3.0	11.8	<1.1	<20	<2
MAR									
25...	1100	E90	46	4.4	9.0	11.6	<1.2	<20	<2
MAY									
25...	1040	113	37	4.4	12.5	9.2	E1.3	50	26
JUL									
06...	1140	124	37	4.9	21.0	8.9	<.4	<20	7
AUG									
11...	1050	55	26	--	23.0	8.7	E1.9	<20	5
SEP									
16...	1030	45	42	5.7	17.0	9.2	E2.2	<20	9

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
01...	0	2.2	1.0	2.5	.9	<1.0	9.4	4.8	.0
MAR									
25...	9	2.0	1.0	2.4	.6	2.0	8.3	4.4	<.1
MAY									
25...	7	1.6	.8	2.9	1.3	3.0	8.0	5.6	<.1
JUL									
06...	7	1.5	.8	4.2	.3	--	4.0	3.8	<.1
AUG									
11...	5	1.0	.5	2.5	.2	4.0	3.0	3.3	<.1
SEP									
16...	7	1.0	1.1	7.5	.5	3.0	4.0	4.9	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
01...	4.9	36	<.010	.20	--	.13	.33	<.06	3.3
MAR									
25...	3.8	25	<.010	.10	<.050	E.25	--	<.06	2.8
MAY									
25...	4.5	32	.010	.10	.080	.55	.65	.06	4.8
JUL									
06...	4.8	--	.020	<.10	.050	.43	--	.06	9.5
AUG									
11...	4.0	22	<.010	<.10	.080	.31	--	.06	3.2
SEP									
16...	4.2	23	<.010	<.10	<.050	.29	--	.12	2.2

01409510 BATSTO RIVER AT PLEASANT MILLS, NJ

LOCATION.--Lat 39°37'55", long 74°38'40", Burlington County, Hydrologic Unit 02040301, on right bank, 0.5 mi (1.6 km) southeast of Pleasant Mills.

DRAINAGE AREA.--73.6 mi^2 (190.6 km^2).

PERIOD OF RECORD.--July 1958 to current year. Annual maximum only published for 1958 to 1965.

GAGE.--Water-stage recorder. Datum of gage is -8.6 ft (-2.62 m) National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Summaries for months with short periods of no gage-height record have been estimated with negligible or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 7.2 ft (2.19 m) Mar. 7, 1962; minimum (1967-79), -0.40 ft (-0.122 m) Oct 18, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.05 ft (1.222 m) Nov. 15; minimum, -0.21 ft (-0.064 m) Dec. 1.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	3.17	4.05	3.40	3.57	3.59	--	3.23	3.41	3.50	3.26	3.05	3.51
high tide	Date	18	15	27	4	18	--	6	24	8	21	19	22
Minimum	Elevation	--	-0.02	-0.21	--	--	--	--	0.08	0.14	--	-0.08	-0.11
low tide	Date	--	29	1	--	--	--	--	20	26	--	20	10
Mean high tide		--	2.50	2.30	--	--	--	--	--	2.83	--	--	2.67
Mean water level		--	1.43	1.33	--	--	--	--	--	1.81	--	--	1.46
Mean low tide		--	0.36	0.43	--	--	--	--	--	0.61	--	--	0.21

NOTE.--Missing on doubtful record on Oct. 1-15, Jan. 12-Feb. 16, Feb. 28-Mar. 29, Apr. 2-May 11, July 1-Aug. 9.

01409810 WEST BRANCH WADING RIVER NEAR JENKINS, NJ

LOCATION.--Lat 39°41'17", long 74°32'54", Burlington County, Hydrologic Unit 02040301, on right bank 900 ft (274 m) downstream from Godfrey Bridge, 2.2 mi (3.5 km) downstream from Little Hospitality Brook, and 1.2 mi (1.9 km) southwest of Jenkins.

DRAINAGE AREA.--84.1 mi^2 (217.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR NJ-77-1: 1976. WDR NJ-81-1: 1975(P), 1976(P), 1977(P), 1978(P), 1979(P), 1980(P).

GAGE.--Water-stage recorder. Datum of gage is 29.09 ft (8.87 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Some regulation by cranberry bogs and small ponds.

AVERAGE DISCHARGE.--8 years, 149 ft^3/s (4.220 m^3/s), 24.06 in/yr (611 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft^3/s (37.4 m^3/s) Feb. 26, 1979, gage height, 16.14 ft (4.919 m); minimum, 22 ft^3/s (0.62 m^3/s) July 24, 1977, gage height 10.16 ft (3.097 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 350 ft^3/s (9.91 m^3/s) Apr. 30, gage height, 13.15 ft (4.008 m), no peak above base of 600 ft^3/s (17.0 m^3/s); minimum, 27 ft^3/s (0.76 m^3/s) Sept. 15, 16, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	110	54	128	202	97	130	260	115	174	47	42
2	55	92	82	143	184	92	118	180	101	150	44	42
3	65	86	77	130	252	95	133	139	86	151	43	44
4	50	81	67	226	315	97	167	139	77	175	42	42
5	43	77	70	310	292	119	168	133	82	146	43	38
6	46	87	65	294	254	126	198	130	108	120	54	36
7	53	90	55	254	231	184	195	131	91	104	51	35
8	43	82	52	218	218	252	180	122	82	86	46	34
9	39	76	53	192	207	253	172	161	80	84	44	34
10	54	74	51	156	204	234	205	139	73	75	45	33
11	58	74	51	141	156	209	192	165	69	66	43	34
12	63	74	55	124	143	202	165	150	64	63	42	35
13	45	70	58	116	139	194	162	129	82	58	41	33
14	44	66	59	119	134	182	126	108	228	52	37	31
15	44	64	131	120	132	152	115	93	230	58	36	28
16	49	84	202	120	136	149	117	85	207	60	34	30
17	45	87	199	120	153	154	115	81	208	52	38	42
18	40	107	171	116	149	143	162	80	211	50	41	32
19	48	87	148	110	208	131	161	73	203	48	39	33
20	57	82	135	116	193	127	149	70	133	48	36	36
21	51	107	123	121	183	129	121	83	113	52	37	41
22	54	107	119	111	193	123	112	93	105	49	35	59
23	60	99	124	135	166	115	104	128	96	50	39	51
24	57	88	122	206	144	118	145	140	82	47	58	43
25	69	82	118	201	126	148	137	156	73	42	70	38
26	122	64	114	178	103	111	113	170	67	40	78	39
27	104	61	112	157	102	100	224	164	61	40	59	49
28	175	63	111	141	100	94	288	133	61	56	52	52
29	168	58	108	138	---	92	289	132	86	58	47	43
30	136	56	100	135	---	111	308	137	180	49	41	37
31	121	---	94	149	---	109	---	127	---	48	41	---
TOTAL	2108	2435	3080	4925	5019	4442	4971	4031	3454	2351	1403	1166
MEAN	68.0	81.2	99.4	159	179	143	166	130	115	75.8	45.3	38.9
MAX	175	110	202	310	315	253	308	260	230	175	78	59
MIN	39	56	51	110	100	92	104	70	61	40	34	28
CFSM	.81	.97	1.18	1.89	2.13	1.70	1.97	1.55	1.37	.90	.54	.46
IN.	.93	1.08	1.36	2.18	2.22	1.96	2.20	1.78	1.53	1.04	.62	.52

CAL YR 1981 TOTAL 33063 MEAN 90.6 MAX 456 MIN 34 CFSM 1.08 IN 14.62
WTR YR 1982 TOTAL 39385 MEAN 108 MAX 315 MIN 28 CFSM 1.28 IN 17.42

01409815 WEST BRANCH WADING RIVER AT MAXWELL, NJ
(National stream-quality accounting network station)

LOCATION.--Lat 39°40'30", long 74°32'28", Burlington County, Hydrologic Unit 02040301, at bridge on State Highway 563 in Maxwell, 1.6 mi (2.6 km) southeast of Washington, 1.8 mi (2.9 km) southwest of Jenkins, and 2.2 mi (3.5 km) upstream from confluence with Oswego River.

DRAINAGE AREA.--85.9 mi² (222.5 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Water-stage recorder located at station 01409810.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 12...	1145	74	42	4.0	8.0	.50	10.7	1.2	<4	200
JAN 26...	1100	177	59	4.2	.5	2.5	12.2	.2	<4	98
MAR 11...	1115	208	51	4.3	5.5	1.9	11.2	.4	<3	200
MAY 20...	1030	72	38	4.5	19.0	3.6	8.1	--	K14	1100
JUL 09...	1200	86	43	3.5	23.5	4.3	7.3	.9	K24	1600
SEP 13...	1100	34	34	3.2	18.0	3.0	8.9	.6	20	340

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 12...	2	.4	.4	1.7	.2	<1.0	4.6	3.4	<.1	4.3
JAN 26...	4	.9	.5	2.2	.6	1.0	8.8	4.0	<.1	4.8
MAR 11...	4	.9	.5	2.0	.6	<1.0	7.7	3.4	<.1	3.8
MAY 20...	3	.6	.3	2.0	.5	<1.0	6.0	3.7	<.1	4.7
JUL 09...	3	.6	.3	1.9	<.1	<1.0	4.0	3.6	<.1	5.0
SEP 13...	3	.7	.3	1.9	.3	1.0	5.0	4.3	<.1	5.5

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
NOV 12...	16	--	--	--	.11	.050	.25	.020	<.010	<.010
JAN 26...	34	8	3.8	100	.13	.030	.53	.010	<.010	<.010
MAR 11...	27	4	2.2	88	.04	.020	.28	.040	.040	.030
MAY 20...	26	6	1.2	100	<.10	<.010	.40	.030	<.010	<.010
JUL 09...	24	4	.93	100	<.10	.030	.30	.030	<.010	<.010
SEP 13...	--	5	.46	81	<.10	<.010	.30	<.010	<.010	<.010

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
NOV 12...	1145	--	1	--	15	1	<1	10	10	2
JAN 26...	1100	1	0	<100	37	2	1	20	10	<1
MAY 20...	1030	1	1	<100	17	4	2	10	<10	4
SEP 13...	1100	1	1	<100	20	1	<1	10	<10	1

01409815 WEST BRANCH WADING RIVER AT MAXWELL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
NOV										
12...	1	7	7	920	47	3	<1	20	8	--
JAN										
26...	<1	6	2	960	530	10	2	20	20	.1
MAY										
20...	4	7	3	2800	350	7	4	20	15	.8
SEP										
13...	1	4	4	1300	190	2	<1	11	11	.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV									
12...	<.1	2	2	--	<1	<1	<1	90	14
JAN									
26...	.1	1	1	<1	<1	<1	<1	20	20
MAY									
20...	<.1	5	5	<1	<1	<1	<1	190	13
SEP									
13...	<.1	4	1	<1	<1	<1	<1	10	6

01410000 OSWEGO RIVER AT HARRISVILLE, NJ

LOCATION.--Lat 39°39'47", long 74°31'26", Burlington County, Hydrologic Unit 02040301, and right bank 50 ft (15 m) downstream from bridge on State Highway Spur 563 at Harrisville, and 0.5 mi (0.8 km) upstream from confluence with West Branch Wading River.

DRAINAGE AREA.--64.0 mi^2 (165.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1955, published as "East Branch Wading River at Harrisville".

GAGE.--Water-stage recorder. Concrete control since June 23, 1939. Datum of gage is 4.62 ft (1.408 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Figures given herein represent flow over main spillway and through bypass channel. Flow regulated by Harrisville Pond 200 ft (61 m) above station, capacity, about 30,000,000 gal (114,000 m^3) and by ponds and cranberry bogs 5 to 10 mi (8 to 16 km) upstream.

AVERAGE DISCHARGE.--52 years, 87.7 ft^3/s (2.484 m^3/s), 18.61 in/yr (473 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,390 ft^3/s (39.4 m^3/s) Aug. 20, 1939, gage height, 9.54 ft (2.908 m), from high-water mark in gage house, from rating curve extended above 640 ft^3/s (18.1 m^3/s); no flow part of Oct. 26, 1932, June 10, 1970, and May 29, 30, 1974, while pond was filling.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 154 ft^3/s (4.36 m^3/s) Feb. 4, gage height, 3.28 ft (1.000 m); minimum, 20 ft^3/s (0.57 m^3/s) Oct. 9, gage height, 2.74 ft (0.835 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	42	44	64	88	52	52	70	58	90	35	31
2	32	48	61	69	93	51	46	63	53	82	36	32
3	30	42	51	61	133	51	50	57	48	82	39	33
4	25	43	45	109	148	52	60	54	45	88	32	31
5	25	40	50	126	130	61	54	51	49	83	29	30
6	26	39	45	108	113	66	74	47	51	76	33	30
7	23	39	42	96	101	93	79	45	50	70	31	29
8	22	38	42	87	90	117	79	46	49	67	43	33
9	21	38	41	82	85	108	73	70	47	60	30	32
10	21	38	38	74	86	98	67	55	45	54	30	32
11	23	38	35	69	80	89	64	49	44	51	29	32
12	23	38	38	60	74	86	61	92	43	45	29	29
13	29	37	36	60	72	82	56	83	55	43	28	28
14	28	38	37	61	67	76	53	73	100	44	27	28
15	27	37	73	63	66	69	50	59	96	49	27	28
16	26	44	98	59	68	66	48	50	84	57	28	28
17	24	44	85	56	68	69	46	56	87	49	34	27
18	26	55	70	52	67	66	74	41	94	47	38	26
19	34	50	58	51	73	64	70	41	86	47	31	25
20	28	48	51	50	80	60	80	41	77	47	30	27
21	26	51	47	50	80	57	68	46	74	47	30	27
22	28	51	46	50	75	56	55	47	70	45	29	28
23	33	48	49	64	70	52	51	60	64	45	31	27
24	37	46	52	89	67	50	55	69	58	45	36	25
25	43	44	49	84	62	47	45	85	53	42	46	25
26	64	43	47	76	59	46	52	85	51	41	41	25
27	53	43	47	69	57	44	80	77	49	39	38	30
28	52	43	46	65	55	43	97	71	46	38	38	27
29	55	42	45	59	---	43	91	69	47	37	38	25
30	61	40	43	57	---	43	80	66	96	36	32	23
31	46	---	43	61	---	45	---	63	---	35	32	---
TOTAL	1016	1287	1554	2181	2307	2002	1910	1881	1869	1681	1030	853
MEAN	32.8	42.9	50.1	70.4	82.4	64.6	63.7	60.7	62.3	54.2	33.2	28.4
MAX	64	55	98	126	148	117	97	92	100	90	46	33
MIN	21	37	35	50	55	43	45	41	43	35	27	23
CFSM	.51	.67	.78	1.10	1.29	1.01	1.00	.95	.97	.85	.52	.44
IN.	.59	.75	.90	1.27	1.34	1.16	1.11	1.09	1.09	.98	.60	.50

CAL YR 1981 TOTAL 20126 MEAN 55.1 MAX 194 MIN 21 CFSM .86 IN 11.70
WTR YR 1982 TOTAL 19571 MEAN 53.6 MAX 148 MIN 21 CFSM .84 IN 11.38

01410000 OSWEGO RIVER AT HARRISVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL (MPN)	HARD- NESS (MG/L AS CACO3)
OCT 06...	0930	39	4.5	14.0	10.1	<1.6	<20	<2	3
FEB 04...	0950	62	4.2	4.0	12.2	<.3	<20	<2	5
MAR 25...	1300	49	4.0	10.0	12.0	E1.4	<20	<2	4
JUN 08...	1130	38	5.0	14.0	10.4	<.5	<20	2	4
JUL 13...	0930	37	4.4	27.0	8.2	<.8	<20	2	5
AUG 17...	1000	41	4.4	23.0	8.5	E1.2	<20	2	4

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 06...	1.1	.2	2.1	.9	2.0	.3	6.2	3.8	.1
FEB 04...	1.0	.6	2.5	.5	<1.0	--	9.9	3.8	<.1
MAR 25...	.8	.6	2.3	.6	<1.0	--	7.3	3.7	<.1
JUN 08...	.8	.4	2.5	.7	<1.0	<.5	4.0	5.1	<.1
JUL 13...	1.2	.5	2.7	.5	1.0	--	7.0	4.4	<.1
AUG 17...	.8	.4	3.4	.3	<1.0	--	7.0	4.0	<.1

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	8.3	16	.000	<.05	--	<.05	.06	2.8
FEB 04...	5.4	36	.020	<.10	--	.33	<.06	4.8
MAR 25...	6.1	25	<.010	<.10	.120	E.15	<.06	2.6
JUN 08...	6.4	25	<.010	<.10	.100	.37	.06	2.2
JUL 13...	6.9	36	.010	<.10	.060	.30	.06	3.9
AUG 17...	7.7	--	<.010	<.10	.100	.23	.06	3.9

01410000 OSWEGO RIVER AT HARRISVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
OCT								
06...	0930	160	1	<10	60	1	20	9
JUN								
08...	1130	180	1	<10	10	<1	20	6

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
06...	440	3	20	<.1	7	<1	40	2
JUN								
08...	920	10	20	<.1	2	<1	20	<1

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ

LOCATION.--Lat 39°37'23", long 74°26'30", Burlington County, Hydrologic Unit 02040301, on left bank upstream of bridge on Stage Road, 0.7 mi (1.1 km) west of Lake Absegami, 2.2 mi (3.5 km) north of New Gretna, and 5.3 mi (8.5 km) upstream from mouth.

DRAINAGE AREA.--8.11 mi² (21.00 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969 to 1974. January 1978 to current year.

REVISED RECORDS.--WDR NJ-81-1: 1978-80(P).

GAGE.--Water-stage recorder. Altitude of gage is 5 ft (1.5 m), from topographic map.

REMARKS.--Water-discharge records good. Some regulation by Lake Absegami.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 260 ft³/s (7.36 m³/s) July 4, 1978, gage height, 5.87 ft (1.789 m); minimum, 7.0 ft³/s (0.20 m³/s) Aug. 14, 15, 16, Sept. 6, 7, 1982, gage height, 3.63 ft (1.106 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft³/s (1.02 m³/s) June 30, gage height, 4.76 ft (1.451 m); no peak above base of 65 ft³/s (1.84 m³/s); minimum, 7.0 ft³/s (0.20 m³/s) Aug. 14, 15, 16, Sept. 6, 7, gage height, 3.63 ft (1.106 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	9.3	8.2	15	20	13	14	13	11	28	9.0	8.3
2	9.0	9.1	13	19	20	12	12	13	10	15	8.4	8.3
3	8.9	8.9	12	14	26	13	12	12	9.5	12	8.3	8.5
4	8.1	8.6	9.7	23	28	12	14	12	9.1	20	8.3	8.2
5	7.9	8.5	10	28	22	15	12	12	10	16	8.2	7.8
6	7.8	9.0	9.5	21	18	16	17	12	12	12	8.3	7.7
7	7.7	9.1	8.7	17	17	23	20	12	11	11	8.3	7.8
8	7.5	8.8	8.8	16	16	26	15	12	10	10	8.0	8.0
9	7.5	8.4	9.0	15	17	21	14	12	9.8	9.9	8.3	8.0
10	7.5	8.6	8.5	15	18	16	15	11	9.0	9.6	8.7	7.9
11	7.5	8.5	8.3	13	16	15	13	11	8.8	9.5	8.3	7.9
12	7.6	8.3	8.3	13	15	15	12	11	8.8	9.6	8.0	7.8
13	7.6	8.2	8.1	13	15	15	12	11	10	9.4	8.0	7.7
14	7.4	8.2	8.1	14	15	14	11	11	19	9.0	7.6	7.7
15	7.4	8.4	18	15	15	13	11	11	16	9.0	7.6	7.8
16	7.5	9.0	26	14	16	14	11	10	11	9.1	7.5	7.9
17	7.5	9.3	21	13	16	15	11	10	10	8.9	7.9	8.0
18	7.6	12	15	13	15	15	17	10	10	8.7	12	7.8
19	9.1	11	13	12	17	13	16	10	9.8	8.3	11	7.6
20	8.5	9.4	11	13	19	13	13	9.9	9.6	12	8.8	8.0
21	7.9	8.9	11	13	18	13	11	11	8.9	23	8.1	8.4
22	7.7	8.5	11	12	16	13	11	12	8.8	14	7.9	9.2
23	7.7	8.3	12	16	15	12	10	13	8.5	11	8.2	9.1
24	9.0	8.1	12	24	14	12	9.9	14	8.3	11	12	8.3
25	9.1	8.1	11	20	13	12	10	14	8.2	9.6	14	7.9
26	18	8.1	11	15	13	12	12	14	8.2	9.0	13	7.9
27	17	8.2	11	13	13	11	21	12	8.2	8.8	10	8.3
28	14	8.1	11	13	13	11	22	11	8.3	9.3	9.4	8.2
29	11	7.8	11	12	---	11	18	11	12	10	8.8	7.9
30	9.9	7.7	10	12	---	11	15	11	34	9.4	8.5	7.9
31	9.6	---	9.8	14	---	12	---	12	---	9.4	8.3	---
TOTAL	278.1	262.4	355.0	480	476	439	411.9	360.9	327.8	361.5	278.7	241.8
MEAN	8.97	8.75	11.5	15.5	17.0	14.2	13.7	11.6	10.9	11.7	8.99	8.06
MAX	18	12	26	28	28	26	22	14	34	28	14	9.2
MIN	7.4	7.7	8.1	12	13	11	9.9	9.9	8.2	8.3	7.5	7.6
CFSM	1.11	1.08	1.42	1.91	2.10	1.75	1.69	1.43	1.34	1.44	1.11	.99
IN.	1.28	1.20	1.63	2.20	2.18	2.01	1.89	1.66	1.50	1.66	1.28	1.11

CAL YR 1981 TOTAL 4065.7 MEAN 11.1 MAX 33 MIN 7.0 CFSM 1.37 IN 18.65
WTR YR 1982 TOTAL 4273.1 MEAN 11.7 MAX 34 MIN 7.4 CFSM 1.44 IN 19.60

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 06...	1030	34	4.7	11.0	7.5	E1.8	<20	<2	3
FEB 04...	1100	52	4.0	4.0	10.8	<.9	<20	2	5
MAR 25...	1210	46	4.0	8.0	10.8	E1.1	<20	<2	4
JUN 08...	1000	34	4.8	11.5	7.8	<1.1	<20	34	4
JUL 13...	1040	36	4.6	20.0	8.0	<.6	<20	5	3
AUG 17...	1040	33	4.6	17.5	8.0	<.1	20	14	3

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 06...	.6	.5	4.1	.6	1.0	--	4.0	4.9	<.1
FEB 04...	.8	.8	3.0	.5	<1.0	--	7.0	5.0	<.1
MAR 25...	.6	.6	5.1	.5	<1.0	--	6.0	5.3	<.1
JUN 08...	.7	.5	4.0	.6	3.0	<.5	5.0	5.1	<.1
JUL 13...	.6	.5	2.7	.4	1.0	--	4.0	4.6	<.1
AUG 17...	.4	.4	2.6	.3	1.0	--	3.0	4.7	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	9.0	23	<.003	<.05	--	<.05	.12	1.8
FEB 04...	4.9	40	.020	<.10	--	.15	<.06	5.5
MAR 25...	5.4	23	<.010	<.10	.070	E.40	.12	3.7
JUN 08...	7.2	26	<.010	<.10	.110	.23	.06	3.0
JUL 13...	8.3	36	<.010	<.10	.150	.26	<.06	4.0
AUG 17...	9.3	59	.010	<.10	.060	.17	.09	2.4

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
08...	1000	90	<1	<10	10	<1	20	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
08...	420	7	20	.1	2	<1	170	3

01410500 ABSECON CREEK AT ABSECON, NJ

LOCATION.--Lat 39°25'45", long 74°31'16", Atlantic County, Hydrologic Unit 02040302, on right bank 30 ft (9 m) downstream from Doughty Pond Dam of Atlantic City Water Department, 1.0 mi (1.6 km) west of Absecon, and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--16.6 mi² (43.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1923 to April 1929 and June 1933 to December 1938 (monthly discharge only, published in WSP 1302; figures of daily discharge published in previous water-supply papers included diversions above station), May 1946 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 1946, water-stage recorder and wooden control at same site at datum 0.16 ft (0.049 m) lower.

REMARKS.--Water-discharge records good. Records represent flow at gage only. Diversion from Doughty Pond for municipal supply at Atlantic City (records given herein). Flow regulated by Doughty Pond, capacity, 245,000,000 gal (927,300 m³) directly above station, and by Kuehule Reservoir, capacity, 250,000,000 gal (946,200 m³), 1.5 mi (2.4 km) above station.

AVERAGE DISCHARGE.--45 years (water years 1925-28, 1934-38, 1947-82), 26.5 ft³/s (0.750 m³/s), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 295 ft³/s (8.35 m³/s) Sept. 6, 1935; no flow several days in many years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 44 ft³/s (1.25 m³/s) Jan. 4; minimum daily, 0.85 ft³/s (0.024 m³/s) part or all of many days in October and Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	6.2	3.8	13	22	11	16	13	18	8.8	5.6	1.4
2	.85	8.1	16	20	16	12	7.4	11	15	1.8	3.3	2.9
3	.85	6.7	13	13	26	11	4.9	11	7.4	1.8	3.3	11
4	.85	4.9	10	44	25	7.4	15	10	9.4	11	2.9	5.6
5	.85	3.8	14	41	16	12	4.9	11	13	5.6	2.9	1.4
6	.85	7.4	12	20	15	7.4	19	12	13	2.9	4.3	1.4
7	.85	7.4	3.3	16	12	16	24	11	11	1.8	3.3	1.8
8	.85	2.3	5.6	15	11	37	5.6	12	10	1.4	2.9	1.4
9	.85	2.3	12	14	14	18	10	15	7.4	1.4	4.9	1.1
10	.85	3.3	6.7	12	15	14	13	8.1	7.4	1.4	4.9	1.4
11	.85	3.3	4.3	10	12	13	11	4.9	6.7	1.8	2.9	1.8
12	.85	4.3	3.3	7.0	11	14	10	8.8	6.2	1.8	3.3	1.4
13	.85	4.3	1.1	5.6	13	13	8.8	11	8.1	19	4.3	1.4
14	.85	5.6	3.3	6.2	11	12	8.8	10	23	9.4	1.8	1.8
15	.85	8.8	36	7.5	11	7.4	8.1	9.4	13	5.6	1.8	1.4
16	.85	4.3	40	10	11	11	8.1	8.8	9.4	3.3	1.4	1.8
17	.85	8.8	22	8.0	11	14	8.8	8.8	10	2.3	1.4	4.3
18	3.0	11	16	6.5	15	13	16	8.1	6.2	1.8	4.9	.85
19	2.5	6.2	12	11	18	11	13	8.8	6.7	2.3	4.3	1.8
20	2.0	6.7	9.4	8.0	25	10	11	9.4	6.2	1.1	4.3	1.4
21	1.8	8.8	9.4	7.5	16	11	11	14	1.8	9.4	1.8	2.9
22	1.8	3.8	8.8	8.5	19	11	8.1	13	1.8	7.4	1.4	4.3
23	2.3	3.3	11	7.0	11	7.4	6.2	16	3.8	21	1.4	6.2
24	2.3	4.3	10	12	12	8.1	6.2	17	1.4	14	5.6	2.3
25	1.8	8.8	8.8	20	11	9.4	7.4	18	1.4	8.1	15	2.3
26	11	2.3	8.8	16	6.2	11	9.4	15	1.4	7.4	7.4	1.8
27	18	3.8	10	13	9.4	8.1	25	13	1.4	3.3	4.3	3.3
28	19	5.6	9.4	10	11	4.3	32	12	1.8	3.3	2.3	2.9
29	10	5.6	11	8.0	---	2.9	19	12	4.3	5.6	1.4	1.8
30	9.4	4.9	5.6	7.8	---	6.2	15	8.8	11	1.4	1.1	3.8
31	7.4	---	6.7	10	---	11	---	25	---	4.9	1.4	---
TOTAL	106.75	166.9	343.3	407.6	405.6	354.6	362.7	365.9	237.2	172.1	111.8	78.95
MEAN	3.44	5.56	11.1	13.1	14.5	11.4	12.1	11.8	7.91	5.55	3.61	2.63
MAX	19	11	40	44	26	37	32	25	23	21	15	11
MIN	.85	2.3	1.1	5.6	6.2	2.9	4.9	4.9	1.4	1.1	1.1	.85
(†)	4.0	4.2	3.6	5.0	3.4	3.4	3.5	3.3	3.9	7.4	8.2	6.3

CAL YR 1981 TOTAL 3671.27 MEAN 10.1 MAX 52 MIN .00 † 3.9
WTR YR 1982 TOTAL 3113.40 MEAN 8.53 MAX 44 MIN .85 † 4.7

† Diversion, in cubic feet per second, above station from Doughty Pond for municipal supply by Atlantic City.

01410784 GREAT EGG HARBOR RIVER NEAR SICKLERVILLE, NJ

LOCATION.--Lat 39°44'02", long 74°57'05", Camden County, Hydrologic Unit 02040302, at bridge on Sicklerville-New Freedom Road (Spur 536), 1.5 mi (2.4 km) northeast of Sicklerville, and 2.7 mi (4.3 km) upstream of New Brooklyn Lake dam.

DRAINAGE AREA.--15.1 mi² (39.1 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 05...	1230	9.0	128	6.4	12.5	7.5	2.0	22	49	20
JAN 25...	1230	19	233	5.9	.5	11.8	4.0	2	7	23
MAR 23...	1230	11	110	6.6	8.5	10.8	2.2	9	2	18
JUN 16...	1330	--	74	6.8	23.0	8.5	2.1	540	920	27
JUL 28...	1030	9.0	132	6.5	20.5	5.2	1.1	--	--	19
AUG 17...	1100	6.8	159	6.6	18.0	4.6	1.4	49	330	21
SEP 23...	1150	9.0	147	6.6	15.5	4.8	--	230	1100	25

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	5.0	1.8	14	2.8	17	.1	9.7	16	<.1
JAN 25...	5.8	2.1	28	2.3	7.0	--	14	46	<.1
MAR 23...	4.4	1.6	11	2.6	8.0	--	14	11	<.1
JUN 16...	6.7	2.4	2.8	1.2	15	--	11	5.5	<.1
JUL 28...	4.7	1.7	18	3.7	26	--	10	16	<.1
AUG 17...	5.1	1.9	18	3.9	16	--	13	15	<.1
SEP 23...	6.3	2.2	17	4.0	15	--	16	16	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	8.3	84	--	2.4	--	E.60	--	2.30	4.5
JAN 25...	6.0	128	--	.70	--	1.60	2.3	.92	--
MAR 23...	5.4	70	.020	1.5	.900	E1.90	--	1.50	3.8
JUN 16...	3.9	72	.020	.20	.140	.60	.80	--	9.6
JUL 28...	2.7	90	<.010	2.5	.060	.62	3.1	2.20	4.1
AUG 17...	6.3	92	.010	3.8	.080	.78	4.6	2.40	3.8
SEP 23...	7.1	104	.090	3.3	.160	1.00	4.3	2.50	3.2

01410784 GREAT EGG HARBOR RIVER NEAR SICKLERVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
OCT											
05...	2640	.1	18	70	2	0	<10	10	1	<1	20

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT											
05...	<1	<10	8	2	270	460	2	10	10	3	.1

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
05...	<.01	2	<10	<1	<1	40	13	3	<1.0	<.1	14

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT										
05...	26	6.2	95	<.1	.3	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1

01410820 GREAT EGG HARBOR RIVER NEAR BLUE ANCHOR, NJ

LOCATION.--39°40'09", long 74°54'49", Camden County, Hydrologic Unit 02040302, downstream side of bridge on Broad Lane Road, 1.9 mi (3.1 km) southwest of Blue Anchor, and 2.1 mi (3.4 km) downstream from confluence of Fourmile Branch.

DRAINAGE AREA.--37.3 mi² (96.6 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT										
19...	1230	29	105	6.6	12.0	8.7	3.6	46	920	18
JAN										
25...	1030	66	151	5.9	.5	14.2	1.4	17	33	18
MAR										
23...	1100	37	83	6.5	8.0	11.1	1.3	2	5	16
JUN										
16...	1100	112	66	4.5	17.0	4.8	1.0	170	170	13
JUL										
19...	1230	36	74	6.5	21.5	6.6	1.2	>2400	7900	14
AUG										
12...	1100	26	77	6.9	17.5	7.9	.5	79	1100	14
SEP										
23...	1015	31	86	6.7	15.0	8.2	.6	110	490	15

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
19...	3.9	2.0	11	2.5	15	--	8.6	10	<.1
JAN									
25...	3.9	2.0	15	2.1	6.0	--	12	25	<.1
MAR									
23...	3.4	1.8	6.8	1.8	7.0	--	10	8.7	<.1
JUN									
16...	3.1	1.2	4.4	.8	3.0	<.5	10	7.9	<.1
JUL									
19...	2.9	1.6	5.9	1.4	8.0	--	7.0	8.9	<.1
AUG									
12...	3.1	1.6	[illegible]	1.6	12	--	8.0	9.1	<.1
SEP									
23...	3.2	1.7	8.7	2.4	7.0	--	9.0	10	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
19...	6.4	70	--	2.4	--	.50	2.9	1.20	2.8
JAN									
25...	5.7	90	--	1.2	--	1.20	2.4	.58	4.2
MAR									
23...	5.3	56	.010	1.3	.200	1.10	2.4	.58	3.8
JUN									
16...	5.0	81	.020	.20	.090	.86	1.1	.55	24
JUL									
19...	5.3	69	.010	1.1	.160	.75	1.9	.95	6.1
AUG									
12...	5.1	49	<.010	1.3	.070	.43	1.7	1.10	3.1
SEP									
23...	6.6	66	<.010	1.6	.110	.48	2.1	.86	4.0

01410820 GREAT EGG HARBOR RIVER NEAR BLUE ANCHOR, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
16...	1100	300	1	<10	160	1	10	8

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
16...	900	4	30	.1	6	<1	30	1

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ

LOCATION.--Lat 39°35'42", long 74°51'06", Atlantic County, Hydrologic Unit 02040302, on left bank, 25 ft (7.6 m) upstream from bridge on State Highway 54, 1.0 mi (1.6 km) south of Folsom, and 2.0 mi (3.2 km) upstream from Pennypot Stream.

DRAINAGE AREA.--56.3 mi² (145.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1925 to current year. Prior to October 1947, published as "Great Egg River at Folsom".

REVISED RECORDS.--WSP 781: Drainage area. WSP 1432: 1928(M), 1933.

GAGE.--Water-stage recorder. Concrete control since Nov. 26, 1934. Datum of gage is 53.32 ft (16.252 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 6, 1941, water-stage recorder at site 100 ft (30 m) downstream at same datum. Mar. 6 to Oct. 5, 1941, nonrecording gage at site 145 ft (44 m) downstream at datum 0.25 ft (0.076 m) higher.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--57 years, 86.3 ft³/s (2.440 m³/s), 20.82 in/yr (529 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s (40.8 m³/s) Sept. 3, 1940, gage height, 9.09 ft (2.771 m); minimum, 15 ft³/s (0.42 m³/s) Sept. 6, 1957, Aug. 28-30, 1966; minimum gage height, 3.42 ft (1.042 m) Aug. 28-30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 233 ft³/s (6.60 m³/s) Apr. 30, gage height, 4.87 ft (1.484 m); minimum, 27 ft³/s (0.76 m³/s) Sept. 20, gage height, 3.51 ft (1.070 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	61	47	71	88	71	73	203	117	104	55	32
2	45	59	60	80	99	70	77	163	114	132	52	36
3	47	57	68	85	122	70	78	126	98	133	49	39
4	45	54	70	98	153	69	83	103	83	122	46	42
5	45	52	70	123	180	73	86	91	75	105	45	38
6	44	53	67	156	174	75	91	84	75	91	44	36
7	42	55	65	159	152	84	98	79	75	75	45	33
8	40	53	62	141	128	100	106	75	73	67	45	33
9	38	50	61	125	109	122	110	73	70	62	45	33
10	38	49	58	104	99	136	104	70	66	59	43	33
11	37	47	56	86	96	126	96	68	63	56	41	32
12	37	46	54	78	92	112	89	65	62	56	40	32
13	37	45	52	71	87	99	82	65	64	59	40	30
14	37	44	52	70	83	92	78	67	91	56	38	30
15	35	44	70	70	80	86	75	69	123	57	37	30
16	34	52	92	70	78	82	72	68	164	101	34	29
17	34	60	119	66	78	83	71	65	146	109	33	30
18	35	67	146	67	78	85	82	63	124	91	34	29
19	39	69	142	68	79	83	92	60	102	69	33	29
20	41	70	126	67	86	80	96	59	82	62	32	32
21	39	66	110	66	92	76	92	63	74	59	31	42
22	38	62	96	66	95	74	85	70	70	55	30	45
23	37	58	84	69	95	72	77	71	66	60	30	49
24	42	55	81	83	90	70	73	73	64	67	41	46
25	48	52	79	91	83	70	70	74	62	60	44	43
26	61	50	77	91	78	69	72	76	59	54	48	40
27	66	49	74	86	74	67	92	79	58	52	43	45
28	72	49	73	80	73	66	142	78	56	53	38	47
29	74	47	71	75	---	65	212	76	66	55	35	45
30	73	46	70	72	---	64	229	85	89	56	32	43
31	68	---	67	74	---	66	---	101	---	58	31	---
TOTAL	1409	1621	2419	2708	2821	2557	2883	2562	2531	2295	1234	1103
MEAN	45.5	54.0	78.0	87.4	101	82.5	96.1	82.6	84.4	74.0	39.8	36.8
MAX	74	70	146	159	180	136	229	203	164	133	55	49
MIN	34	44	47	66	73	64	70	59	56	52	30	29
CFSM	.81	.96	1.39	1.55	1.79	1.47	1.71	1.47	1.50	1.31	.71	.65
IN.	.93	1.07	1.60	1.79	1.86	1.69	1.90	1.69	1.67	1.52	.82	.73

CAL YR 1981 TOTAL 21661 MEAN 59.3 MAX 146 MIN 30 CFSM 1.05 IN 14.31
WTR YR 1982 TOTAL 26143 MEAN 71.6 MAX 229 MIN 29 CFSM 1.27 IN 17.27

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ

LOCATION.--Lat 39°30'50", long 74°46'47", Atlantic County, Hydrologic Unit 02040302, at bridge on U.S. Route 322 in Weymouth, 0.5 mi (0.8 km) upstream from Deep Run, and 20.9 mi (33.6 km) upstream from mouth.

DRAINAGE AREA.--154 mi^2 (399 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
FEB 16...	1050	191	60	4.9	7.0	11.2	<1.3	4	<2
MAR 18...	1010	200	59	4.9	7.5	10.7	--	130	350
JUN 02...	1200	190	50	5.1	20.5	7.0	1.2	350	540
JUL 28...	1045	110	54	6.0	23.0	7.0	.8	--	--
AUG 10...	1100	100	55	6.3	21.5	7.9	.9	7	170
SEP 22...	1015	90	53	6.3	15.5	8.8	.3	50	1600

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 16...	10	2.1	1.2	4.1	1.1	2.0	9.9	8.0	<.1
MAR 18...	12	2.5	1.4	4.7	1.0	2.0	11	7.3	<.1
JUN 02...	10	2.1	1.1	4.1	.8	4.0	10	7.1	<.1
JUL 28...	9	1.9	1.0	5.3	.7	4.0	7.0	8.3	<.1
AUG 10...	9	1.9	1.0	5.3	1.0	4.0	5.0	8.3	<.1
SEP 22...	9	1.9	1.0	5.1	1.3	4.0	7.0	8.5	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 16...	5.6	43	--	.50	.350	.35	.85	.09	4.7
MAR 18...	5.5	42	<.010	.50	.100	E.57	--	.12	4.1
JUN 02...	5.2	29	<.010	.20	E.050	.45	.65	.21	12
JUL 28...	5.6	46	.010	.40	.070	.45	.85	.25	4.5
AUG 10...	6.0	40	<.010	.60	E.050	.45	1.0	.31	2.5
SEP 22...	6.7	47	<.010	.50	.080	.35	.85	.15	1.8

01411300 TUCKAHOE RIVER AT HEAD OF RIVER, NJ

LOCATION.--Lat 39°18'25", long 74°49'15", Cape May County, Hydrologic Unit 02040302, on right bank at highway bridge on State Route 49, 0.2 mi (0.3 km) upstream from McNeals Branch, 0.4 mi (0.6 km) southeast of Head of River, and 3.7 mi (6.0 km) west of Tuckahoe.

DRAINAGE AREA.--30.8 mi² (79.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1969 to current year.

REVISED RECORDS.--WDR NJ-78-1: 1975(M), 1976(M).

GAGE.--Water-stage recorder and wooden control. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those below 30 ft³/s (0.850 m³/s), which are poor. Occasional regulation by ponds above station.

AVERAGE DISCHARGE.--12 years, 44.2 ft³/s (1.252 m³/s), 19.49 in/yr (495 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 385 ft³/s (10.9 m³/s) Mar. 7, 1979, elevation, 6.23 ft (1.899 m); minimum daily, 1.3 ft³/s (0.037 m³/s) Sept. 3, 13, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 120 ft³/s (3.40 m³/s) Jan. 5, elevation, 4.74 ft (1.445 m); minimum, 6.6 ft³/s (0.190 m³/s) Nov. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	24	21	41	63	33	41	61	38	17	18	14
2	22	22	44	59	60	33	27	52	34	16	16	14
3	21	21	40	41	81	33	25	47	30	18	15	20
4	11	19	31	75	93	32	35	44	30	43	15	18
5	11	19	31	108	71	38	29	42	36	33	14	16
6	12	24	28	71	57	42	42	39	41	24	14	15
7	11	24	25	52	47	77	53	39	52	20	15	15
8	10	21	24	43	40	109	38	39	46	18	13	15
9	12	21	23	38	44	85	34	38	38	16	16	15
10	14	22	22	32	57	63	40	35	32	16	23	14
11	16	22	21	28	48	52	38	33	29	15	19	14
12	19	22	21	30	42	49	32	33	27	25	16	13
13	22	24	20	29	38	46	28	37	30	27	15	12
14	17	26	22	30	38	43	26	35	56	20	14	12
15	18	32	52	30	37	39	24	33	48	21	13	12
16	21	31	92	29	39	38	23	31	36	45	12	12
17	18	38	77	29	39	49	24	30	33	33	14	12
18	18	57	50	28	43	46	78	29	35	23	31	11
19	24	47	39	27	52	41	87	28	39	19	27	11
20	16	41	33	26	71	38	67	28	40	18	20	13
21	12	34	30	26	65	37	56	35	35	25	17	14
22	13	25	29	26	63	36	48	39	33	21	16	16
23	12	20	30	35	53	35	43	44	31	24	15	15
24	16	19	30	57	44	32	40	60	27	34	18	13
25	20	21	29	50	39	32	38	65	25	25	24	13
26	43	20	27	42	36	32	45	51	24	20	24	13
27	39	21	28	37	35	31	83	41	23	17	18	16
28	37	19	27	33	35	30	103	38	21	16	17	15
29	35	16	27	31	---	30	94	41	17	16	16	14
30	30	16	25	29	---	29	74	37	18	16	15	15
31	28	---	24	43	---	33	---	41	---	19	14	---
TOTAL	609	768	1022	1255	1430	1343	1415	1245	1004	700	534	422
MEAN	19.6	25.6	33.0	40.5	51.1	43.3	47.2	40.2	33.5	22.6	17.2	14.1
MAX	43	57	92	108	93	109	103	65	56	45	31	20
MIN	10	16	20	26	35	29	23	28	17	15	12	11
CFSM	.64	.83	1.07	1.32	1.66	1.41	1.53	1.31	1.09	.73	.56	.46
IN.	.74	.93	1.23	1.52	1.73	1.62	1.71	1.50	1.21	.85	.64	.51

CAL YR 1981 TOTAL 9931 MEAN 27.2 MAX 92 MIN 10 CFSM .88 IN 11.99
WTR YR 1982 TOTAL 11747 MEAN 32.2 MAX 109 MIN 10 CFSM 1.05 IN 14.19

01411300 TUCKAHOE RIVER AT HEAD OF RIVER, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to June 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB										
10...	1125	60	55	4.4	2.5	12.4	3.9	<2	<2	6
MAR										
23...	1015	35	45	4.7	7.5	10.5	1.0	<2	<2	5
JUN										
02...	0945	36	35	4.7	19.0	7.0	.8	33	26	4

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
10...	1.1	.8	2.9	.6	<1.0	--	7.2	4.5	<.1
MAR									
23...	1.0	.7	2.9	.6	1.0	--	7.4	4.8	<.1
JUN									
02...	.7	.5	2.3	.4	2.0	<.5	5.0	4.9	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
10...	7.3	28	--	.20	.120	.22	.42	.06	6.4
MAR									
23...	5.5	30	<.010	<.05	.100	E.42	--	.06	5.3
JUN									
02...	6.4	33	<.010	<.10	E.050	.30	--	<.06	7.8

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN								
02...	0945	190	1	<10	30	<1	10	5

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
02...	770	4	20	.2	2	<1	30	2

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in New Jersey made a low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1982

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Hudson River basin				
01367620	Wallkill River at outflow of Lake Mohawk at Sparta, NJ	Lat 41°01'59", long 74°37'36", Sussex County, at bridge on West Shore Trail, at Sparta, 200 ft (61 m) downstream from outflow of Lake Mohawk, and 1.2 mi (1.9 km) southwest of Sparta Station.	4.38 (11.34 km^2)	1979-82	8-16-82 9-16-82	4.2 .85
01367700	Wallkill River at Franklin, NJ	Lat 41°06'43", long 74°35'21", Sussex County, at bridge 120 ft (36 m) downstream from dam at outlet of Franklin Pond in Franklin, Sussex County, and 0.8 mi (1.3 km) upstream from Wildcat Brook.	32.0 (82.9 km^2)	1959-64, 1982	7-13-82	98
01368950	Black Creek near Vernon, NJ	Lat 41°13'21", long 74°28'33", Sussex County, at bridge on Maple Grange Road, 0.6 mi (1.0 km) upstream of confluence with Wawayanda Creek, 0.7 mi (1.1 km) northwest of Maple Grange, and 1.7 mi (2.7 km) northeast of Vernon.	17.3 (44.8 km^2)	1980-82	5-14-82 8-16-82 9-17-82	8.4 14 7.4
		Passaic River basin				
01387520	Stag Brook near Mahwah, NJ	Lat 41°05'45", long 74°10'25", Bergen County, at bridge 300 ft (91 m) upstream from mouth, and 1.5 mi (2.4 km) west of Mahwah, Bergen County.	1.29 (3.34 km^2)	1963-70, 1972, 1982	10-14-81 5-18-82	0 .12
01387600	Darlington Brook at Darlington, NJ	Lat 41°04'46", long 74°11'02", Bergen County, at bridge on Valley Road, U.S. Route 202, at Darlington, Bergen County, 0.3 mi (0.5 km) upstream from mouth, and 2.6 mi (4.2 km) northwest of Ramsey.	3.57 (9.25 km^2)	1963-67, 1982	10-14-81 5-18-82	.57 2.0
01387670	Ramapo River near Darlington, NJ	Lat 41°03'57", long 74°12'31", Bergen County, at bridge on Bear Swamp Road, 250 ft (76 m) upstream from Bear Swamp Brook, 1.6 mi (2.6 km) southwest of Darlington, Bergen County, and 3.0 mi (4.8 km) northeast of Oakland.	132 (342 km^2)	1963-66, 1982	10-14-81 5-18-82	11 78
01387700	Bear Swamp Brook near Oakland, NJ	Lat 41°03'59", long 74°12'35", Bergen County, at bridge, 0.1 mi (0.2 km) upstream from mouth, and 2.9 mi (4.7 km) northeast of Oakland, Bergen County.	3.29 (8.52 km^2)	1963-67, 1982	10-14-81 5-18-82	.06 1.2
01387880	Pond Brook at Oakland, NJ	Lat 41°01'45", long 74°14'13", Bergen County, at bridge on U.S. Route 202, 0.3 mi (0.5 km) upstream from mouth.	7.52 (19.48 km^2)	1963-72, 1976-77, 1982	10-14-81 5-18-82	1.7 5.6

Discharge measurements made at low-flow partial-record stations during water year 1982--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	 Discharge (ft^3/s)
		Passaic River basin--Continued				
01387930	Ramapo River tributary No. 5 at Oakland, NJ	Lat 41°00'54", long 74°15'14", Bergen County, at bridge on U.S. Route 202, 0.35 mi (0.6 km) above mouth, and 1.5 mi (2.4 km) southwest of Oakland, Bergen County.	0.86 (2.23 km^2)	1963-67, 1982	10-14-81 5-18-82	1.1 1.8
01387950	Ramapo River tributary No. 6 at Pompton Lakes, NJ	Lat 41°00'19", long 74°16'57", Passaic County, at bridge on Lakeside Avenue in Pompton Lakes, Passaic County, and 300 ft (91 m) upstream from mouth.	1.79 (4.64 km^2)	1963-67, 1982	10-14-81 5-18-82	.31 .38
01387980	Haycock Brook at Pompton Lakes, NJ	Lat 40°59'40", long 74°16'28", Passaic County, at bridge on U.S. Highway 202 at Pompton Lakes, 150 ft (46 m) upstream from mouth, and 1.5 mi (2.4 km) east of Riverdale.	4.18 (10.83 km^2)	1963-64, 1973-77, 1982	10-14-81 5-18-82	.30 3.3
		Rahway River basin				
01396030	South Branch Rahway River at Colonia, NJ	Lat 40°34'57", long 74°18'04", Middlesex County, at bridge on Dover Road in Colonia, 0.7 mi (1.1 km) northeast of Iselin, and 3.5 mi (5.6 km) northeast of Metuchen.	9.41 (24.37 km^2)	1979-82	8-16-82	1.7
		Raritan River basin				
01396280	South Branch Raritan River at Middle Valley, NJ	Lat 40°45'40", long 74°49'18", Morris County, at bridge on Middle Valley Road, Morris County, 6.9 mi (11.1 km) downstream from Drakes Brook.	47.7 (123.5 km^2)	1963-67, 1973, 1975, 1982	5-20-82	59
01397290	Assiscong Creek at Bartles Corners, NJ	Lat 40°32'23", long 74°50'52" Hunterdon County, at bridge on River Road, 0.3 mi (0.5 km) upstream from mouth, 1.5 mi (2.4 km) north of Flemington, and 2.8 mi (4.5 km) west of Three Bridges.	2.98 (7.72 km^2)	1981-82	5-13-82 8-17-82 9-17-82	2.2 .78 .54
01397800	Neshanic River near Flemington, NJ	Lat 40°28'46", long 74°51'29" Hunterdon County, at bridge on Kuhl Road, 200 ft (60 m) downstream from confluence of First Neshanic River and Second Neshanic River, 1.4 mi (2.3 km) south of Flemington, and 2.1 mi (3.4 km) west of Reaville.	11.4 (29.5 km^2)	1981-82	5-13-82 9-17-82	4.2 0
01397900	Third Neshanic River near Ringoes, NJ	Lat 40°27'31", long 74°52'05", Hunterdon County, at bridge on Everitts Road, 2.0 mi (3.2 km) upstream from mouth, 2.1 mi (3.4 km) north of Ringoes, and 3.0 mi (4.8 km) southwest of Reaville.	9.24 (23.93 km^2)	1981-82	5-13-82 9-17-82	5.6 .40
01398052	Back Brook near Reaville, NJ	Lat 40°27'32", long 74°49'24", Hunterdon County, at bridge on Manners Road, 0.6 mi (1.0 km) upstream from mouth, 0.8 mi (1.3 km) northwest of Wertsville, and 1.5 mi (2.4 km) southeast of Reaville.	11.4 (29.5 km^2)	1981-82	5-13-82 9-17-82	3.3 .06
01398075	Pleasant Run at Centerville, NJ	Lat 40°32'17", long 74°45'17", Hunterdon County, at bridge on Old York Road in Centerville, 2.4 mi (3.9 km) northwest of Neshanic Station, 2.5 mi (4.0 km) upstream from mouth, and 2.7 mi (4.3 km) northwest of Three Bridges.	about 8 (21 km^2)	1982	11-04-81 5-14-82 9-17-82	1.7 3.0 .11
01398260	North Branch Raritan River near Chester, NJ	Lat 40°46'16", long 74°37'34", Morris County, at bridge on State Route 24, 0.8 mi (1.3 km) upstream from Burnett Brook, and 3.8 mi (6.1 km) east of Chester.	7.57 (19.61 km^2)	1964-67, 1980-82	5-25-82	9.8

Discharge measurements made at low-flow partial-record stations during water year 1982--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Raritan River basin--Continued				
01399192	Lamington River tributary near Ironia, NJ	Lat 40°50'53", long 74°38'08", Morris County, at bridge 0.4 mi (0.6 km) upstream from Lamington River, 1.6 mi (2.6 km) north of Ironia, and 2.4 mi (3.9 km) south of Succasunna. Note: Previously published station number of 01399198 and location are incorrect.	about 0.4 (1.0 km^2)	1977-82	5-13-82 9-16-82	1.2 .08
01399194	Succasunna Brook at Succasunna, NJ	Lat 40°51'02", long 74°38'25", Morris County, at extension of Midland Road in Succasunna, 0.3 mi (0.5 km) upstream from Lamington River, 2.2 mi (3.5 km) north of Ironia, and 3.4 mi (5.5 km) east of Flanders.	1.72 (4.45 km^2)	1977-82	5-13-82 8-17-82 9-16-82	1.4 1.1 .55
01399600	South Branch Rockaway Creek tributary at Lebanon, NJ	Lat 40°38'05", long 74°49'58", Hunterdon County, at bridge on Old Mountain Road in Lebanon, 0.5 mi (0.8 km) upstream from mouth, and 1.8 mi (2.9 km) west of Potterstown.	1.02 (2.64 km^2)	1958, 1960-64, 1978, 1981-82	5-26-82	.46
01401400	Heathcote Brook at Kingston, NJ	Lat 40°22'10", long 74°36'59", Middlesex County, at bridge on Mapleton Road, at Penn Central railroad bridge, 0.3 mi (0.5 km) south of Kingston, and 0.4 mi (0.6 km) upstream from mouth.	9.00 (23.31 km^2)	1979-82	5-14-82 8-17-82 9-17-82	2.7 1.6 1.4
01403330	Bound Brook at South Plainfield, NJ	Lat 40°34'43", long 74°24'45", Middlesex County, at bridge on Hamilton Road in South Plainfield, 0.5 mi (0.8 km) upstream from Cedar Brook, and 1.9 mi (3.1 km) east of New Market.	9.55 (24.73 km^2)	1979-82	8-16-82	3.7
01403350	Cedar Brook at South Plainfield, NJ	Lat 40°34'57", long 74°24'53", Middlesex County, at bridge on Lakeview Road in South Plainfield, 0.4 mi (0.6 km) upstream from mouth, and 2.0 mi (3.2 km) east of Dunellen.	7.10 (18.39 km^2)	1979-82	8-16-82	.67
01404060	Ambrose Brook at Middlesex, NJ	Lat 40°34'03", long 74°31'02", Middlesex County, at dam, 900 ft (270 m) upstream from bridge on State Route 18 in Middlesex, and 0.7 mi (1.1 km) upstream from mouth.	13.9 (36.0 km^2)	1979-82	8-17-82	1.6
01404180	Mill Brook at Highland Park, NJ	Lat 40°30'23", long 74°25'51", Middlesex County, at bridge on Harrison Street in Highland Park, 0.7 mi (1.1 km) upstream from mouth, and 0.9 mi (1.4 km) northeast of New Brunswick.	1.41 (3.65 km^2)	1979-82	8-16-82	.40
01405240	Matchaponix Brook near Englishtown, NJ	Lat 40°19'21", long 74°21'35", Middlesex County, at bridge on Union Hill Road, 1.7 mi (2.7 km) north of Englishtown, and 2.8 mi (4.6 km) northwest of Gordons Corner.	29.1 (75.4 km^2)	1979-82	5-14-82 8-17-82	24 15
01405285	Barclay Brook near Englishtown, NJ	Lat 40°20'53", long 74°21'27", Middlesex County, at bridge on State Route 527 (Old Bridge-Englishtown Road), 0.6 mi (1.0 km) south of Redshaw Corner, 0.9 mi (1.4 km) upstream from mouth, and 3.5 mi (5.6 km) north of Englishtown.	4.94 (12.80 km^2)	1979-82	5-14-82 8-17-82	2.7 .62
01405335	Manalapan Brook near Manalapan, NJ	Lat 40°16'45", long 74°22'53", Monmouth County, at bridge on South Main Street, 1.8 mi (2.9 km) northeast of Manalapan, 1.8 mi (2.9 km) southwest of Englishtown, and 5.6 mi (9.0 km) southeast of Jamesburg.	16.0 (43.8 km^2)	1979-82	5-14-82 8-16-82	14 6.9

Discharge measurements made at low-flow partial-record stations during water year 1982--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Mullica River basin				
*01409375	Mullica River near Atco, NJ	Lat 39°47'08", long 74°51'38", Camden County, 50 ft (15 m) downstream from Jackson-Medford Road and 1.8 mi (2.9 km) northeast of Pennsylvania-Reading Seashore Lines railroad and Atco Street in Atco.	3.22 (8.34 km^2)	1975-82	6-25-82 8-17-82 9-17-82	2.4 .64 .16
01409390	Mullica River at Atsion, NJ	Lat 39°44'19", long 74°43'20", Burlington County, at Central Railroad of New Jersey bridge in Atsion, 500 ft (152 m) downstream from Wesickaman Creek, and 0.3 mi (0.5 km) southeast of Atsion.	33.1 (85.7 km^2)	1975-82	8-17-82 9-16-82	16 12
01409410	Albertson Brook near Hammonton, NJ	Lat 39°41'41", long 74°45'21", Atlantic County, at bridge on U.S. Route 206, 3.1 mi (5.0 km) downstream from confluence of Pump Branch and Blue Anchor Brook, 3.5 mi (5.6 km) south of Atsion, and 5.2 mi (8.4 km) northeast of Hammonton.	19.3 (50.0 km^2)	1975-82	5-12-82 9-17-82	27 13
01409411	Nescochague Creek at Pleasant Mills, NJ	Lat 39°38'28", long 74°39'43", Atlantic County, at bridge on sand road in Pleasant Mills, 0.2 mi (0.3 km) upstream from Mullica River, and 0.6 mi (1.0 km) west of Batsto.	43.8 (113.4 km^2)	1975-82	5-13-82 8-17-82 9-16-82	53 18 17
01409460	Springers Brook near Atsion, NJ	Lat 39°44'26", long 74°41'02", Burlington County, at site 110 ft (34 m) upstream from unnamed left-bank tributary, 700 ft (213 m) downstream from Deep Run, and 2.8 mi (4.5 km) east of Atsion.	21.2 (54.9 km^2)	1975-77, 1980-82	5-12-82 8-17-82 9-16-82	14 2.6 1.3
		Great Egg Harbor River basin				
01411053	Hospitality Branch at Berryland, NJ	Lat 39°36'31", long 74°54'34", Gloucester County, at bridge on Piney Hollow Road, 0.3 mi (0.5 km) southwest of Berryland, 1.2 mi (1.9 km) upstream of Oak Branch and 3.4 mi (5.5 km) west of Folsom.	20.0 (51.8 km^2)	1976-82	5-12-82 8-17-82 9-17-82	20 8.3 7.6
01411140	Deep Run at Weymouth, NJ	Lat 39°30'26", long 74°46'56", Atlantic County, at bridge on State Highway 559, 0.3 mi (0.5 km) upstream of mouth, and 0.5 mi (0.8 km) southwest of Weymouth.	20.0 (51.8 km^2)	1976-82	5-12-82 8-17-82 9-17-82	22 8.5 9.1

* Also a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower stages may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined. The gage heights are heights on the upstream side of the bridge, above the dam or at the discontinued continuous-record gaging station unless otherwise noted.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Hackensack River basin					
*01377475	Musquapsink Brook near Westwood, NJ	Lat 40°59'41", long 74°03'42", Bergen County, at bridge on Pascack Road in Washington Borough, 1.5 mi (2.4 km) west of Westwood, and 5.3 mi (8.5 km) above mouth. Datum of gage before 1973 was 69.67 ft (21.235 m) National Geodetic Vertical Datum of 1929.	2.16 (5.59 km^2)	1965-82	1-04-82	b1.97	150
01377490	Musquapsink Brook at Westwood, NJ	Lat 40°59'11", long 74°02'03", Bergen County, at footbridge at Bogert Pond, 8 ft (2 m) upstream from dam near intersection of Mill Street and First Avenue in Westwood. Datum of gage is 47.67 ft (14.530 m) National Geodetic Vertical Datum of 1929.	6.53 (16.91 km^2)	1966-82	1-04-82	1.57	280
*01378385	Tenakill Brook at Closter, NJ	Lat 40°58'29", long 73°58'06, Bergen County, at bridge on High Street in Closter, 0.7 mi (1.1 km) upstream from mouth. Datum of gage is 23.85 ft (7.270 m) National Geodetic Vertical Datum of 1929.	8.56 (22.17 km^2)	1965-82	1-04-82	b2.38	340
*01378590	Metzler Brook at Englewood, NJ	Lat 40°54'32", long 73°59'40", Bergen County, at bridge on Lantana Avenue in Englewood, and 1.6 mi (2.6 km) upstream from mouth. Datum of gage is 43.10 ft (13.137 m) National Geodetic Vertical Datum of 1929.	1.54 (3.99 km^2)	1965-82	1-04-82	b1.87	135
*01378615	Wolf Creek at Ridgefield, NJ	Lat 40°49'45", Long 74°00'14", Bergen County, at bridge on Clark Avenue in Ridgefield and 0.9 mi (1.4 km) upstream from mouth. Datum of gage is 12.1 ft (3.69 m) National Geodetic Vertical Datum of 1929.	1.18 (3.06 km^2)	1965-82	7-12-82	b5.15	430
		Passaic River basin					
01378690	Passaic River near Bernardsville, NJ	Lat 40°44'03", long 74°32'26", Somerset County, at bridge on U.S. Route 202, 1.8 mi (2.9 km) northeast of Bernardsville, and 3.0 mi (4.8 km) upstream from Great Brook. Datum of gage is 238.07 ft (72.564 m) National Geodetic Vertical Datum of 1929.	8.83 (22.87 km^2)	1968-76‡, 1977-82	1-04-82	bf<12.52	g

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Passaic River basin--Continued					
01379845	Rockaway River at Warren Street, at Dover, NJ	Lat 40°53'08", long 74°33'36", Morris County, on left bank, bank, upstream from Warren Street bridge, in Dover, 4.0 mi (6.4 km) west of Denville and 6 mi (9.6 km) southeast of Lake Hopatcong.	47.5 (123.0 km^2)	1982	1-04-82	4.76	900
01382800	Pequannock River at Riverdale, NJ	Lat 40°59'55", long 74°17'54", Passaic County, on left bank, on downstream side of Hamburg Turnpike bridge in Riverdale, 0.8 mi (1.2 km) above mouth, 2.8 mi (4.5 km) south of Wanaque Reservoir and 3.0 mi (4.8 km) northwest of Wayne.	83.9 (217.3 km^2)	1982	d5-12-81 6-17-82	df f	g g
01387880	Pond Brook at Oakland, NJ	Lat 41°01'36", long 74°14'04", Bergen County, at bridge on NJ Route 208 in Oakland, 0.2 mi (0.3 km) upstream from former site at Franklin Avenue (prior to October 1975), 0.6 mi (1.0 km) upstream from mouth, and 1.5 mi (2.4 km) northwest of Franklin Lakes. Datum of gage is 276.97 ft (84.420 m) National Geodetic Vertical Datum of 1929.	6.76 (17.51 km^2)	1968-71, 1976-82	1-05-82	2.11	240
01389030	Preakness (Signac) Brook near Preakness, NJ	Lat 40°56'55", long 74°13'25", Passaic County, at bridge on Ratzer Road, 1.0 mi (1.6 km) north of Preakness, and 2.0 mi (3.2 km) upstream from Naachtpunkt Brook.	3.24 (8.39 km^2)	1979-82	6-17-82	b3.80	490
01389534	Peckman River at Ozone Avenue at Verona, NJ	Lat 40°50'42", long 74°14'09", Passaic County, at bridge on Ozone Avenue in Verona, 4.0 mi (6.4 km) west of Clifton and 1.0 mi (1.6 km) southwest of Cedar Grove Reservoir.	4.45 (10.07 km^2)	1979-82	1-04-82	b4.20	1,180
01389765	Molly Ann Brook at North Haledon, NJ	Lat 40°57'11", long 74°11'07", Passaic County, at bridge on Overlook Avenue in North Haledon, 1.5 mi (2.4 km) west of Hawthorne and 0.5 mi (0.8 km) upstream from Oldham Pond Dam.	3.89 (11.52 km^2)	1979-82	6-17-82	7.19	1,625
01389900	Fleischer Brook at Market Street, Elmwood Park, NJ	Lat 40°53'57", long 74°06'54", Bergen County, at culvert on Market Street in Elmwood Park (formerly East Paterson), and 2.0 mi (3.2 km) upstream from mouth. Datum of gage is 35.31 ft (10.762 m) National Geodetic Vertical Datum of 1929.	1.37 (3.55 km^2)	1967-82	1-04-82	2.80	127
*01390450	Saddle River at Upper Saddle River, NJ	Lat 41°03'32", long 74°05'44", Bergen County, at culvert on Lake Street in Upper Saddle River, and 1.3 mi (2.1 km) downstream from Pine Brook. Datum of gage is 186.11 ft (56.726 m) National Geodetic Vertical Datum of 1929.	10.9 (28.2 km^2)	1966-82	1-04-82	b3.94	990
01390810	Hohokus Brook at Allendale, NJ	Lat 41°01'37", long 74°08'44", Bergen County, at bridge on Brookside Avenue in Allendale, and 0.2 mi (0.3 km) downstream from Valentine Brook. Datum of gage is 277.46 ft (84.570 m) National Geodetic Vertical Datum of 1929.	9.11 (23.60 km^2)	1969-82	1-04-82	5.23	358

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Passaic River basin--Continued					
01390900	Ramsey Brook at Allendale, NJ	Lat 41°01'45", long 74°08'06", Bergen County, at bridge on Brookside Avenue in Allendale and 0.6 mi (1.0 km) upstream from Hohokus Brook. Datum of gage is 270.79 ft (82.537 m) National Geodetic Vertical Datum of 1929.	2.55 (6.60 km²)	1975-82	1-04-82	b2.35	172
01392500	Second River at Belleville, NJ	Lat 40°47'17", long 74°10'19", Essex County, on Mill Street in Branch Brook Park at Belleville, 300 ft (91 m) downstream from Franklin Avenue, and 1,100 ft (335 m) downstream from Hendricks Pond dam. Datum of gage is 62.6 ft (19.08 m) National Geodetic Vertical Datum of 1929.	11.6 (30.04 km²)	1937-64‡, 1963-82	1-04-82	5.57	1,950
		Raritan River basin					
01397500	Walnut Brook near Flemington, NJ	Lat 40°30'55", long 74°52'52", Hunterdon County, on right bank 1.2 mi (1.9 km) northwest of Flemington, and 2.3 mi (3.7 km) upstream from mouth. Datum of gage is 267.33 ft (81.482 m) National Geodetic Vertical Datum of 1929.	2.24 (5.80 km²)	1936-61‡, 1965-82	1-04-82	3.54	785
01400630	Millstone River at Southfield Road near Grovers Mill, NJ	Lat 40°18'12", long 74°34'33", Mercer County, at bridge on Southfield Road, 0.2 mi (0.3 km) southeast at Grovers Mill, 3.5 mi (5.6 km) southwest of Cranbury, and 3.0 mi (4.8 km) upstream of Bear Brook. Datum of gage is 62.63 ft (19.09 m) National Geodetic Vertical Datum of 1929.	41.0 (106.2 km²)	1971,1975 1979-82	1-04-82	4.57	435
01400730	Millstone River at Plainsboro, NJ	Lat 40°19'27", long 74°36'51", Mercer County, on left bank 30 ft (9 m) upstream from bridge on Penn Central railroad, 100 ft (30 m) downstream from Cranbury Brook, 0.2 mi (0.3 km) upstream from Bear Brook, and 0.9 mi (1.4 km) southwest of Plainsboro. Datum of gage is 53.41 ft (16.279 m) National Geodetic Vertical Datum of 1929.	65.8 (170.4 km²)	1965-75‡, 1976-82	1-04-82	4.30	825
01400775	Bear Brook at Route 535 near Locust Corner, NJ	Lat 40°16'04", long 74°34'39", Mercer County, at bridge on State Route 535, 0.9 mi (1.4 km) southwest of Locust Corner, 2.0 mi (3.2 km) east of Hightstown, and 4.2 mi (6.8 km) above mouth. Datum of gage is 73.75 ft (22.479 m) National Geodetic Vertical Datum of 1929.	6.69 (17.33 km²)	1971,1975 1979-82	1-04-82	b4.74	195
01400822	Little Bear Brook at Penns Neck, NJ	Lat 40°19'21", long 74°37'37", Mercer County, at downstream side of bridge on Alexander Road, 0.9 mi (1.4 km) southeast of Penns Neck, 2.8 mi (4.5 km) southwest of Plainsboro and 1.0 mi (1.6 km) above mouth. Datum of gage is 53.96 ft (16.447 m) National Geodetic Vertical Datum of 1929.	1.84 (4.77 km²)	1971,1975 1979-82	1-04-82	b3.41	h36.0

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Raritan River basin--Continued					
01400900	Stony Brook at Glenmoore, NJ	Lat 40°21'55", long 74°47'14", Mercer County, at highway bridge on Spur State Route 518, 200 ft (61 m) east of tracks of CONRAIL, at Glenmoore, and 2.0 mi (3.2 km) southwest of Hopewell. Datum of gage is 159.1 ft (48.49 m) National Geodetic Vertical Datum of 1929.	17.0 ($44.03 km^2$)	1957-82	1-04-82	b6.44	1,750
*01400930	Baldwin Creek at Pennington, NJ	Lat 40°20'18", long 74°47'50", Mercer County, at bridge on State Route 31, 0.8 mi (1.3 km) north of Pennington, and 0.9 mi (1.4 km) upstream from Baldwin Lake dam. Datum of gage is 161.69 ft (49.283 m) National Geodetic Vertical Datum of 1929.	1.99 ($5.15 km^2$)	1960-82	1-04-82	5.49	318
01400950	Hart Brook near Pennington, NJ	Lat 40°19'17", long 74°45'38", Mercer County, at culvert on Federal City Road, 1.6 mi (2.6 km) upstream of mouth, and 1.7 mi (2.7 km) southeast of Pennington. Datum of gage after July 1, 1975 is 163.32 ft (49.780 m) National Geodetic Vertical Datum of 1929.	0.57 ($1.48 km^2$)	1968-82	1-04-82	2.93	102
01401160	Duck Pond Run near Princeton Junction, NJ	Lat 40°17"47", long 74°38'47", Mercer County, on right bank upstream from bridge on Clarksville Road, 1.5 mi (2.4 km) southwest of Princeton Junction and 4.0 mi (6.4 km) south of Princeton. Datum of gage is 72.50 ft (22.098 m) National Geodetic Vertical Datum of 1929.	1.35 ($3.50 km^2$)	1982	1-04-82	4.14	83
01401200	Duck Pond Run at Clarksville, NJ	Lat 40°18'24", long 74°40'06", Mercer County, at bridge on U.S. Route 1, 0.5 mi (0.8 km) upstream from Delaware and Raritan Canal, and 0.9 mi (1.4 km) northeast of Clarksville. Datum of gage is 54.14 ft (16.502 m) National Geodetic Vertical Datum of 1929.	5.21 ($13.49 km^2$)	1965-82	1-04-82	3.84	169
01401301	Millstone River at Carnegie Lake at Princeton, NJ	Lat 40°22'11", long 74°37'15", Middlesex County, at right end of Carnegie Lake dam, 2.5 mi (4.0 km) northeast of Princeton. Datum of gage is 50.00 ft (15.240 m) National Geodetic Vertical Datum of 1929.	159 ($412 km^2$)	1926-74‡, 1977-82	1-04-82	4.69	5,100
*01401520	Beden Brook near Hopewell, NJ	Lat 40°23'02", long 74°44'28", Mercer County, at bridge on Aunt Molly Road, 0.8 mi (1.3 km) upstream from Province Line Road, 1.1 mi (1.8 km) southeast of Hopewell, and 2.6 mi (4.2 km) southwest of Blawenburg. Datum of gage is 116.43 ft (35.488 m) National Geodetic Vertical Datum of 1929.	6.07 ($15.72 km^2$)	1967-82	1-04-82	5.93	1,150

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Raritan River basin--Continued					
01401595	Rock Brook near Blawenburg, NJ	Lat 40°25'47", long 74°41'05", Somerset County, at bridge on Burnt Hill Road, 0.7 mi (1.1 km) upstream from mouth, 1.0 mi (1.6 km) northeast of Blawenburg, and 2.8 mi (4.5 km) northwest of Rocky Hill. Datum of gage is 63.45 ft (19.340 m) National Geodetic Vertical Datum of 1929.	9.03 (23.39 km^2)	1967-82	1-04-82	b5.18	870
01401600	Beden Brook near Rocky Hill, NJ	Lat 40°24'52", long 74°39'02", Somerset County, at bridge on U.S. Route 206, 0.7 mi (1.1 km) upstream from Pike Run, 1.2 mi (1.9 km) northwest of Rocky Hill, and 4.6 mi (7.4 km) north of Princeton. Datum of gage is 38.09 ft (11.610 m) National Geodetic Vertical Datum of 1929.	27.6 (71.5 km^2)	1967-82	1-04-82	b10.43	3,700
01401870	Six Mile Run near Middlebush, NJ	Lat 40°28'12", long 74°32'42", Somerset County, at bridge on South Middlebush Road, 1.6 mi (2.6 km) upstream from mouth, and 2.1 mi (3.4 km) south of Middlebush. Datum of gage is 39.91 ft (12.165 m) National Geodetic Vertical Datum of 1929.	10.7 (27.7 km^2)	1966-82	-	-	-
01403395	Blue Brook at Seeleys Pond Dam near Berkeley Heights, NJ	Lat 40°40'02", long 74°24'13", Union County, on wall on right bank, upstream from Seeleys Pond spillway, 300 ft (91 m) north of Scotch Plains, 1.0 mi (1.6 km) west of mountainside, and 4.5 mi (7.2 km) southeast of Berkeley Heights.	3.59 (9.30 km^2)	1982	1-04-82	4.83	252
		Navesink River basin					
01407290	Big Brook at Marlboro, NJ	Lat 40°19'10", long 74°12'52", Monmouth County, downstream side of bridge on Hillsdale Road, 1.7 mi (2.7 km) east of Marlboro and 3.0 mi (4.8 km) northwest of Colts Neck.	6.42 (16.63 km^2)	1982	1-04-82	b3.07	220
		Manasquan River basin					
*01407830	Manasquan River near Georgia, NJ	Lat 40°12'36", long 74°16'41", Monmouth County, at culvert on Jacksons Mill Road near Georgia, and 0.5 mi (0.8 km) upstream from Debois Creek. Datum of gage is 70.47 ft (21.479 m) National Geodetic Vertical Datum of 1929.	10.6 (27.5 km^2)	1969-82	1-04-82	10.03	246
*01408015	Mingamahone Brook at Farmingdale, NJ	Lat 40°11'38", long 74°09'42", Monmouth County, at bridge on Belmar Road in Farmingdale, and 3.0 mi (4.8 km) upstream from mouth. Datum of gage is 48.64 ft (14.825 m) National Geodetic Vertical Datum of 1929.	6.22 (16.11 km^2)	1969-82	7-28-82	3.82	85
*01408030	Manasquan River at Allenwood, NJ	Lat 40°08'35", long 74°07'03", Monmouth County, at bridge on Hospital Road at Allenwood, and 1.5 mi (2.4 km) downstream from Mill Run. Datum of gage is 3.56 ft (1.085 m) National Geodetic Vertical Datum of 1929.	63.9 (165.5 km^2)	1969-82	1-04-82	-	a2,260

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Mullica River basin					
**01409000	Cedar Creek at Lanoka Harbor, NJ	Lat 39°52'03", long 74°10'10", Ocean County, at bridge on U.S. Route 9 in Lanoka Harbor, 0.6 mi (1.0 km) south of Toms River, and 2.0 mi (3.2 km) upstream from mouth. Datum of gage is National Geodetic Vertical Datum of 1929.	56.0 (145.0 km^2)	1932-58‡, 1970-71‡, 1979-82	1-07-82	3.39	457
*01409375	Mullica River near Atco, NJ	Lat 39°47'08", long 74°51'38", Burlington County, on left bank of small lake 50 ft (15 m) downstream from bridge on Jackson-Medford Road, 0.7 mi (1.1 km) north of intersection of Route 534 with Jackson-Medford Road, and 1.6 mi (2.6 km) east of Atco. Datum of gage is 102.90 ft (31.364 m) National Geodetic Vertical Datum of 1929.	3.22 (8.34 km^2)	1975-82	4-30-82	b4.23	19.8
*01409403	Wildcat Branch at Chesilhurst, NJ	Lat 39°44'04", long 74°51'33", Camden County, at culvert on Old White Horse Pike, 0.5 mi (0.8 km) east of Chesilhurst, and 0.9 mi (1.4 km) north of Waterford Works. Datum of gage is 98.98 ft (30.170 m) National Geodetic Vertical Datum of 1929.	1.03 (2.67 km^2)	1975-82	4-30-82	4.54	5.6
*01409409	Blue Anchor Brook near Blue Anchor, NJ	Lat 39°41'17", long 74°51'00", Camden County, at bridge on Spring Garden Road, 4,000 ft (1,220 m) upstream of Route 30 highway bridge, 1.8 mi (2.9 km) east of Blue Anchor and 2.2 mi (3.5 km) upstream from mouth. Datum of gage is 84.94 ft (25.890 m) National Geodetic Vertical Datum of 1929.	3.01 (7.80 km^2)	1975-82	4-30-82	f<4.07	g<9.2
		Great Egg Harbor River basin					
01410810	Fourmile Branch at New Brooklyn, NJ	Lat 39°41'47", long 74°56'25", Camden County, on left bank 70 ft (21 m) upstream from bridge on Malaga Road, 0.3 mi (0. 5 km) northeast of New Brooklyn, 0.3 mi (0.5 km) upstream from mouth. Datum of gage is 101.04 ft (30.797 m) National Geodetic Vertical Datum of 1929.	7.74 (20.05 km^2)	1972-79‡, 1980-82	6-29-82	4.24	87

*	Also a low-flow partial-record station.
**	Also a tidal crest-stage station.
†	Discharge not determined.
‡	Operated as a continuous-record gaging station.
a	Estimated.
b	Downstream side of bridge.
c	Not previously published.
d	Revised.
e	Backwater from tide.
f	Peak did not reach bottom of gage.
g	Peak discharge for the period was less than the minimum recordable discharge.
h	Peak for period of Oct. 1, 1981 to June 9, 1982. Gage dismantled due to construction.

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Hudson River basin				
01367770 Wallkill River	Rondout Creek	Lat 41°11'38", long 74°34'32", Sussex County, at bridge 0.6 mi (1.0 km) upstream of Papakating Creek, 1.7 mi (2.7 km) southwest of Independence Corner, 2.0 mi (3.2 km) southeast of Sussex, and 2.1 mi (3.4 km) northwest of McAfee.	60.8 (157.5 km^2)	1977-81	7-02-82 8-10-82	127 220
01367910 Papakating Creek	Wallkill River	Lat 41°12'02", long 74°35'59", Sussex County, at bridge on State Highway 23, 0.6 mi (1.0 km) south of Sussex, 2.0 mi (5.2 km) upstream from mouth, 2.6 mi (4.2 km) southwest of Independence Corner, and 3.4 mi (5.6 km) northwest of McAfee.	59.4 (153.8 km^2)	1977-81	7-01-82	132
		Passaic River basin				
0138742503 Ramapo River	Pompton River	Lat 41°06'15", long 74°09'24", Bergen County, at Mouth of Mahwah River, 0.5 mi (0.8 km) southeast of New York State line, and 0.6 mi (0.9 km) upstream of Highway 17 bridge.	-	-	10-14-81 5-18-82	a*11.6 a*49.0
01387483 Mahwah River	Ramapo River	Lat 41°06'19", long 74°08'59", Bergen County, at Erie railroad bridge in West Mahwah, 2,640 ft (805 m) upstream of mouth, and 0.1 mi (0.2 km) southwest of New York State boundary.	-	-	10-14-81 5-18-82	a*0.61 a*16.3
01387485 Masonicus Brook	Mahwah River	Lat 41°04'32", long 74°08'20", Bergen County, at bridge on Franklin turnpike, 1.28 mi (2.1 km) northeast of Ramsey, and 0.6 mi (0.9 km) northwest of Camp Hlond Reservoir.	-	-	10-14-81 5-18-82	a*.04 a*.55
01387486 Masonicus Brook tributary	Masonicus Brook	Lat 41°04'28", long 74°09'10", Bergen County, at bridge on Myrtle Avenue, 1,400 ft (427 m) from mouth, 1.1 mi (1.8 km) southwest of Mahwah, and 1.3 mi (2.1 km) northeast of Darlington Lake.	-	-	10-14-81 5-18-82	a.11 a.45
01387488 Masonicus Brook	Mahwah River	Lat 41°05'17", long 74°09'04", Bergen County, at bridge on Island Road, 100 ft (30 m) downstream of Sunset Lake, and 0.4 mi (0.7 km) southwest of Mahwah.	-	-	10-14-81 5-18-82	a*.50 a*1.26
01387489 Masonicus Brook	Mahwah River	Lat 41°05'39", long 74°08'55", Bergen County, at bridge on East Ramapo Avenue in Mahwah, 50 ft (15 m) downstream of Winters Pond, and 3,400 ft (1,050 m) from mouth.	-	-	5-18-82	a*5.75
01387490 Masonicus Brook	Ramapo River	Lat 41°05'54", long 74°08'57", Bergen County, at bridge on Eastview N Road at Mahwah, 1,800 ft (549 m) upstream from mouth, and 1,580 ft (483 m) downstream from Winters Pond.	-	-	10-14-81 5-18-82	a2.16 a6.22
0138749208 Mahwah River	Ramapo River	Lat 41°06'15", long 74°09'22", Bergen County, at site at mouth of Mahwah River in West Mahwah, and 1,800 ft (549 m) downstream from Masonicus Brook Tributary.	-	-	10-14-81 5-18-82	a3.11 a23.7

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin--Continued				
01387521 Ramapo River tributary	Ramapo River	Lat 41°05'45", long 74°10'20" Bergen County, on east side of Ramapo River opposite Stag Brook, and 1.1 mi (1.8 km) southwest of West Mahwah.	-	-	5-18-82	a*.87
01387525 Ramapo River	Pompton River	Lat 41°05'37", long 74°10'21", Bergen County, 800 ft (240 m) below Stag Brook, at north end of island, and 1.2 mi (1.9 km) west of Mahwah.	120 (311 km^2)	1963-64	10-14-81 5-18-82	*16 *74
01387535 Ramapo River tributary No. 7	Ramapo River	Lat 41°05'13", long 74°10'24", Bergen County, at bridge on U.S. Route 202, about 100 ft (30 m) above mouth, and 0.8 mi (1.3 km), northeast of Darlington.	.20 (.52 km^2)	1964	10-14-81 5-18-82	*.05
01387540 Ramapo River	Pompton River	Lat 41°05'22", long 74°10'48", Bergen County, 0.7 mi (1.1 km) north of Darlington, and at island 1.0 mi (1.6 km) above Darlington Brook.	118 (306 km^2)	1963	10-14-81 5-18-82	*15 *77
01387560 Havemeyer Reservoir outlet stream	Ramapo River	Lat 41°05'15", long 74°11'02", Bergen County, at bridge on black top road 300 ft (91 m) above mouth, 0.4 mi (0.6 km) downstream from Havemeyer Reservoir, and 0.6 mi (1.0 km) north of Darlington.	1.50 (3.88 km^2)	1963-64	10-14-81 5-18-82	0 0
01387610 Ramapo River	Pompton River	Lat 41°04'39", long 74°11'33", Bergen County, 0.4 mi (0.6 km) below Darlington Brook, and 0.5 mi (0.8 km) southwest of Darlington.	123 (318 km^2)	1963-64	10-14-81 5-18-82	*14 *76
01387630 MacMillan Reservoir outlet stream	Ramapo River	Lat 41°04'44", long 74°11'48", Bergen County, at bridge on dirt road, 400 ft (120 m) above mouth, 0.5 mi (0.8 km) below MacMillan Reservoir and 0.6 mi (1.0 km) west of Darlington.	.89 (2.30 km^2)	1963-64	10-14-81 5-18-82	*.03 *.23
01387650 Fyke Brook	Ramapo River	Lat 41°04'28", long 74°11'45", Bergen County, at bridge on U.S. Route 202, 0.1 mi (0.2 km) above mouth, and 0.7 mi (1.1 km) southwest of Darlington.	.84 (2.18 km^2)	1963-64	10-14-81 5-18-82	*.10 *.36
01387660 Ramapo River	Pompton River	Lat 41°04'31", long 74°11'52", Bergen County, at mouth of Fyke Brook, 0.6 mi (1 km) southeast of Matty Price Hill and 0.9 mi (1.4 km) southwest of Darlington.	-	-	5-18-82	a*79
01387720 Ramapo River tributary No. 2	Ramapo River	Lat 41°03'27", long 74°12'53", Bergen County, 0.2 mi (0.3 km) above mouth, 2.3 mi (3.7 km) northeast of Oakland.	.91 (2.36 km^2)	1963-64	10-14-81 5-18-82	*0 *.11
01387750 Fox Brook	Ramapo River	Lat 41°03'27", long 74°13'18", Bergen County, at bridge on dirt road, 0.1 mi (0.2 km) above mouth, and 2.1 mi (3.4 km) northeast of Oakland.	1.47 (3.81 km^2)	1963-64	10-14-81 5-18-82	*0 *.54
01387760 Ramapo River tributary No. 8	Ramapo River	Lat 41°03'01", long 74°13'10", Bergen County, 0.4 mi (0.6 km) above mouth, and 1.7 mi (2.7 km) northeast of Oakland.	.45 (1.16 km^2)	1964	10-14-81 5-18-82	*.13 *.42
01387770 Ramapo River tributary No. 9	Ramapo River	Lat 41°02'48", long 74°13'27", Bergen County, 0.3 mi (0.5 km) above mouth, and 1.4 mi (2.3 km) northeast of intersection of State Route 200 and U.S. Route 202 at Oakland.	.07 (.18 km^2)	1964	10-14-81 5-18-82	*.01 *.06

DISCHARGE AT PARTIAL-RECORD STAIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Passaic River basin--Continued				
01387790 Ramapo River tributary No. 3	Ramapo River	Lat 41°02'56, long 74°13'45", Bergen County, 200 ft (60 m) above mouth, 1.4 mi (2.3 km) northeast of Oakland.	.98 (2.54 km^2)	1963-64	10-14-81 5-18-82	*0 *.19
01387800 Ramapo River tributary No. 10	Ramapo River	Lat 41°02'30", long 74°13'38", Bergen County, 0.3 mi (0.5 km) above mouth, 1.0 mi (1.6 km) northeast of intersection of State Route 200, and U.S. Route 202 at Oakland.	.17 (.44 km^2)	1964	10-14-81 5-18-82	*.01 *.14
01387810 Ramapo River tributary No. 11	Ramapo River	Lat 41°02'14", long 74°14'29", Bergen County, near north end of Crystal Lake, 50 ft (15 m) above mouth, and 0.6 mi (1.0 km) northwest of intersection of State Route 200, and U.S. Route 202 at Oakland.	.28 (.72 km^2)	1964	10-14-81 5-18-82	*0 *.09
01387811 Ramapo River	Pompton River	Lat 41°02'12", long 74°14'30", Bergen County, at bridge on Lenape Lane, 550 ft (168 m) northwest of Chrystal Lake, 175 ft (53 m) downstream from unnamed tributary and 0.8 mi (1.2 km) north of Oakland.	-	-	5-18-82	a*94.9
01387830 Pond Brook	Crystal Lake	Lat 41°00'36", long 74°13'16", Bergen County, at bridge on High Mountain Road, 0.2 mi (0.3 km) northeast of Baker Pond, and 1.1 mi (1.8 km) southwest of Franklin Lakes.	-	-	10-14-81 5-18-82	a*.86 a*2.68
01387840 Pond Brook	Crystal Lake	Lat 40°59'45", long 74°12'47", Bergen County, at bridge on High Mountain, 150 ft (46 m) east of Franklin Lakes, and 0.4 mi (0.6 km) northeast of Franklin Lake.	-	-	10-14-81 5-18-82	a*.41 a*1.74
01387850 Pond Brook tributary	Pond Brook	Lat 41°01'12", long 74°13'09", Bergen County, 100 ft (30 m) downstream of New York South and West railroad bridge, 0.3 mi (0.5 km) northeast of Conrad Pond, and 1.0 mi (1.7 km) southwest of Campgaw.	-	-	5-18-82	a*1.26
01387853 Pond Brook	Crystal Lake	Lat 41°01'13", long 74°13'12", Bergen County, 300 ft (91 m) downstream from New York South and West railroad bridge 0.3 mi (0.5 km) northeast of Conrad Pond, and 1.1 mi (1.8 km) southwest of Campgaw.	-	-	10-14-81 5-18-82	a*1.54 a*4.07
01387879 Pond Brook tributary	Pond Brook	Lat 41°01'45", long 74°14'13", Bergen County, at mouth, at downstream right bank of bridge on U.S. Route 202, and 0.2 mi (0.3 km) northeast of State Route 208 at Oakland.	.33 (.85 km^2)	1968	10-14-81	*.07
01387900 Ramapo River tributary No. 4	Ramapo River	Lat 41°01'52", long 74°15'09", Bergen County, at bridge of Skyline Drive, 0.3 mi (0.5 km) above mouth, 0.8 mi (1.3 km) west of Oakland.	.34 (.88 km^2)	1963-64	10-14-81 5-18-82	*.01 *.26
01387910 Ramapo River	Pompton River	Lat 41°01'19", long 74°15'25", Bergen County, 1.2 mi (1.9 km) southwest of Oakland, and 2.2 mi (3.5 km) northeast of Pompton Lakes.	144 (373 km^2)	1963-64	10-14-81 5-18-82	*15.4 *95.0

DISCHARGE MEASUREMENTS AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin--Continued				
01387915 Ramapo River tributary	Ramapo River	Lat 41°01'20", long 74°15'51", Bergen County, at site 1,580 ft (483 m) upstream from mouth, 0.6 mi (1 km) southeast of Ramapo Lake, and 0.8 mi (1.3 km) northeast of Pompton Lakes.	-	-	10-14-81 5-18-82	0 a*.08
01389824 Goffle Brook	Passaic River	Lat 40°59'39", long 74°12'47", Bergen County, at bridge on Granite Street in Midland Park, 1,400 ft (459 m) upstream of small unnamed lake, and 0.4 mi (0.7 km) downstream from Godwin Avenue bridge.	-	-	10-14-81 5-18-82	a*.25 a*2.22
01389839 Deep Brook	Goffle Brook	Lat 40°59'05", long 74°09'42", Bergen County, at site on Manchester Way in Wyckoff, 0.3 mi (0.5 km) upstream of Grandview Avenue bridge, and 800 ft (257 m) downstream of unnamed tributary.	-	-	10-14-81 5-18-82	0 ab*.37
01389840 Deep Brook	Goffle Brook	Lat 40°58'56", long 74°09'28", Bergen County, at bridge on Grandview Avenue in Wyckoff, and 1.4 mi (2.3 km) upstream of mouth.	-	-	10-14-81 5-18-82	a*.09 a*.74
01390940 Hohokus Brook	Saddle River	Lat 41°00'50", long 74°07'45", Bergen County, at bridge on Hopper Avenue, 500 ft (152 m) downstream of Whites Lake, and 0.6 mi (1 km) northeast of Waldwick.	-	-	10-14-81 5-18-82	a*4.26 a*12.7
01390945 Hohokus Brook tributary	Hohokus Brook	Lat 41°00'43", long 74°07'36", Bergen County, at bridge on Prospect Street, 0.7 mi (1.1 km) east of Waldwick and 0.3 mi (0.4 km) southeast of White Lake.	-	-	10-14-81 5-18-82	0 a*.06
		Raritan River basin				
01396588 Spruce Run	South Branch Raritan River	Lat 40°40'41", long 74°55'06", Hunterdon County, at site 800 ft (240 m) downstream of Rocky Run, 0.3 mi (0.5 km) above Van Syckel Road bridge, 1.5 mi (2.4 km) northwest of High Bridge, and 1.6 mi (2.6 km) southeast of Glen Gardner.	15.5 (40.1 km^2)	1979-81	6-14-82 6-17-82	44 95
01398095 South Branch Raritan River	Raritan River	Lat 40°31'04", long 74°43'18", Somerset County, at bridge on Opie (River) Road, 0.6 mi (1.0 km) downstream of Pleasant Run, 1.0 mi (1.6 km) northeast of Neshanic Station, and 2.3 mi (3.7 km) southwest of South Branch.	-	1981	10-28-81	8,111
01399120 North Branch Raritan River	Raritan River	Lat 40°38'09", long 74°40'56", Somerset County, at bridge on Burnt Mills Road in Burnt Mills, 0.1 mi (0.2 km) upstream from Lamington River, and 4.0 mi (6.4 km) southwest of Far Hills.	63.8 (165.2 km^2)	1964, 1975-78, 1981	5-25-82	80
01399780 Lamington River	North Branch Raritan River	Lat 40°38'04", long 74°41'13", Somerset County, at bridge on Walsh Road at Burnt Mills, 0.2 mi (0.3 km) upstream from North Branch Raritan River, and 4.4 mi (7.0 km) southwest of Far Hills.	100 (259 km^2)	1964,73, 1975-78, 1981	5-25-82	165

DISCHARGE AT PARTIAL-RECORD STAIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Raritan River basin--Continued				
01403200 Middle Brook	Raritan River	Lat 40°33'38", long 74°32'56", Somerset County, at bridge on Lincoln Boulevard (Old State Route 28), at Bound Brook, 0.5 mi (0.8 km) above mouth.	17.2 (44.5 km^2)	1955, 1975, 1976	12-03-81 12-16-81 1-06-82 2-04-82 2-24-82 3-02-82 4-14-82 4-27-82	87 153 155 158 15 7.4 82 52
01404100 Raritan River	Raritan Bay	Lat 40°30'47", long 74°32'24", Somerset County, at site at Fieldville Dam in Bakelite Park, 0.1 mi (0.2 km) upstream from Interstate 287, and 0.3 mi (0.5 km) south of South Bound Brook.	862 (2,233 km^2)	1969, 1981	10-28-81	2,361
01405302 Matchaponix Brook	South River	Lat 40°23'22", long 74°22'55", Middlesex County, at bridge on Mundy Avenue in Spotswood, 0.2 mi (0.3 km) upstream from mouth, 0.5 mi (0.8 km) east of DeVoe Lake Dam, and 3.4 mi (5.5 km) southeast of Tanners Corners.	44.1 (114.2 km^2)	1964, 1980	5-26-82	76
		Navesink River basin				
01407253 Willow Brook	Hop Brook	Lat 40°19'47", long 74°10'26", Monmouth County, at bridge on Willow Brook Road, 1.2 mi (1.9 km) southeast of Holmdel, 1.3 mi (2.1 km) northeast of Vanderburg, and 1.6 mi (2.6 km) northwest of Sugar Loaf Hill.	7.56 (19.48 km^2)	1979-81	12-02-81 6-14-82	18 16
		Manasquan River basin				
01407997 Marsh Bog Brook	Manasquan River	Lat 40°10'01", long 74°09'33", Monmouth County, at bridge on Squankum-Yellow Brook Road at Squankum, 0.2 mi (0.3 km) upstream from mouth.	4.91 (12.72 km^2)	1966, 1972,74, 1978-81	6-14-82	27
		Metedeconk River basin				
01408119 Gravelly Run	North Branch Metedeconk River	Lat 40°06'38", long 74°09'06", Monmouth County, at bridge on paved road, 3,300 ft (1 km) upstream from mouth, 0.8 mi (1.3 km) southwest of Ramtown, and 1.3 mi (2.1 km) northeast of Greenville.	-	-	11-04-81	b*.15
01408128 South Branch Metedeconk River tributary No. 3	South Branch Metedeconk River	Lat 40°08'35", long 74°18'40", Ocean County, at bridge on Ocean County Route 526, 0.71 mi (1.1 km) upstream from mouth, 0.78 mi (1.26 km) southwest of Harmony, and 0.81 mi (1.3 km) southeast of Jackson Mills.	-	-	11-05-81	b*.04
400628074163000 South Branch Metedeconk River tributary No. 4	South Branch Metedeconk River	Lat 40°06'28", long 74°16'30" Ocean County, at bridge on Brewers Bridge Road, 0.9 mi (1.5 km) upstream from mouth, 2.7 mi (4.4 km) north of Hope Chapel Road cross roads in Whitesville, and 3.6 mi (5.9 km) east of intersection of State Routes 527 and 528 in Van Hiseville.	-	-	11-05-81	b*.34
01408177 Tunes Branch	South Branch Metedeconk River	Lat 40°02'12", long 74°09'23", Ocean County, at culvert on Emerald Drive, 0.2 mi (0.3 km) upstream from left bank tributary, 1.5 mi (2.4 km) upstream from mouth, 1.5 mi (2.4 km) northwest of Silverton.	-	-	11-04-81	b*.24

DISCHARGE MEASUREMENTS AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Metedeconk River basin--Continued				
01408178 Tunes Branch tributary	Tunes Branch	Lat 40°02'17", long 74°09'17" Ocean County, at culvert near west end of Virginia Avenue, 250 ft (76 m) upstream from mouth, 650 ft (198 m) northeast of intersection with Emerald Drive, 1 mi (1.6 km) northwest of Silverton.	-	-	11-04-81	b*.01
01408179 Tunes Branch	Kettle Creek	Lat 40°02'00", long 74°08'37", Ocean County, at bridge on Moore Road, 0.7 mi (1.1 km) upstream from mouth, 1.2 mi (1.9 km) north of Silverton.	-	-	11-04-81	b*1.63

* Base flow.
a Not previously published.
b Field estimate.
c Includes pumpage from Lake Hopatoong (Delaware River basin).
d Includes pumpage from Lake Wawayanda (Hudson River basin).

The following table contains annual maximum stages for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929 unless otherwise noted. Only the maximum stage is given. Information on some other high stages may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM STAGES AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Period of record	Annual maximum Date	Annual maximum Elevation NGVD* (feet)
01406700	Raritan River at Perth Amboy, NJ	Lat 40°30'31", long 74°17'30", Middlesex County, on downstream left bank, 20 ft (6 m) downstream of Victory Bridge on State Route 35 in Perth Amboy, 0.5 mi (0.8 km) downstream from Garden State Parkway bridge, and 1.5 mi (2.4 km) upstream from mouth of Raritan River.	1967-70‡, 1982	11-15-81	b0.24
01407030	Luppatatong Creek at Keyport, NJ	Lat 40°26'08", long 74°12'27", Monmouth County, on left bank upstream side of Front Street bridge in Keyport, 0.1 mi (0.2 km) upstream from mouth, and 2.0 mi (3.2 km) northwest of Matawan.	1980-82	11-15-81	6.12
01408168	Barnegat Bay at Mantoloking, NJ	Lat 40°42'24", long 74°03'25", Ocean County, at east end of Herbert Street (Mantoloking Road) bridge in Mantoloking and 2.0 mi (3.2 km) south of Bay Head.	1979-82	12-11-81	3.58
01408200	Barnegat Bay at Bay Shore, NJ	Lat 39°56'56", long 74°06'52", Ocean County, at west end of State Route 37 bridge over Barnegat Bay at Bay Shore, 2.2 mi (3.5 km) west of Seaside Heights, and 4.5 mi (7.2 km) east of Toms River.	1965-82	12-11-81	3.21
01409000	Cedar Creek at Lanoka Harbor, NJ	Lat 39°52'05", long 74°10'06", Ocean County, at bridge on U.S. Route 9 in Lanoka Harbor, 0.6 mi (1.0 km) south of Toms River, and 2.0 mi (3.2 km) upstream from mouth.	1932-58‡, 1970-71‡, 1979-82	11-15-81	2.76
01409145	Manahawkin Bay near Manahawkin, NJ	Lat 39°40'13", long 74°12'54", Ocean County, at west end of State Route 72 bridge over Manahawkin Bay, 2.5 mi (4.0 km) northwest of Ship Bottom, and 3.1 mi (5.0 km) southeast of Manahawkin.	1965-82	11-15-81	3.98
01409285	Little Egg Harbor at Beach Haven, NJ	Lat 39°33'10", long 74°15'07", Ocean County, in Beach Haven at U.S. Coast Guard station, 6.0 mi (9.7 km) southeast of Tuckerton and 7.4 mi (11.9 km) southeast of Ship Bottom.	1979-82	11-15-81	4.71
01409510	Batsto River at Pleasant Mills, NJ	Lat 39°37'55", long 74°38'40", Ocean County, on right bank, 0.5 mi (0.8 km) upstream from mouth, and 1.0 mi (1.6 km) southeast of Pleasant Mills.	1958-82‡	11-15-81	4.05
01410100	Mullica River near Port Republic, NJ	Lat 39°33'12", long 74°27'46", Atlantic County, on right bank on bulkhead piling at south end of U.S. Route 9 and Garden State Parkway bridge over Mullica River, 2.8 mi (4.5 km) northeast of Port Republic, and 2.8 mi (4.5 km) south of New Gretna.	1965-82	11-15-81	4.46

ANNUAL MAXIMUM STAGES AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Period of record	Annual maximum	
				Date	Elevation NGVD* (feet)
01410500	Absecon Creek at Absecon, NJ	Lat 39°25'45", long 74°31'16", Atlantic County, on right bank 30 ft (9.1 m) downstream from Doughty Pond Dam of Atlantic City Water Department, 1 mi (1.6 km) west of Absecon, and 3.4 mi (5.5 km) upstream from mouth.	1923-29‡, 1933-38‡, 1946-82‡	a10-25-80 11-15-81	6.53 5.35
01410570	Beach Thorofare at Atlantic City, NJ	Lat 39°21'56", long 74°26'44", Atlantic County, on west abutment south side of Pennsylvania-Reading Seashore Lines railroad swivel bridge, in Atlantic City, 0.5 mi (0.8 km) northeast of Bader Field airport and 2.7 mi (4.3 km) northeast of Ventnor City.	1978‡, 1979-82	11-15-81	5.80
01411300	Tuckahoe River at Head of River, NJ	Lat 39°18'25", long 74°49'15", Cape May County, on right bank at highway bridge on State Route 49, 0.2 mi (0.3 km) upstream from McNeals Branch, 0.4 mi (0.6 km) southeast of Head of River, and 3.7 mi (6.0 km) west of Tuckahoe.	1979-82‡	11-15-81	4.49
01411318	Crook Horn Creek at Ocean City, NJ	Lat 39°15'09", long 74°37'44", Cape May County, at dock on property of county maintenance yard, 100 ft (30 km) south of Roosevelt Boulevard, 1.3 mi (2.1 km) southeast of Marmora, and 3.3 mi (5.3 km) southwest of city hall in Ocean City.	1979-82	11-15-81	4.65
01411320	Great Egg Harbor Bay at Ocean City, NJ	Lat 39°17'03", long 74°34'41", Cape May County, on bulkhead at west end of 7th Street (prior to October 1974, gage was located at Fifth Street), Ocean City, and 2.5 mi (4.0 km) southeast of Somers Point (revised).	1965-82	-	--
01411350	Ludlam Thorofare at Sea Isle City, NJ	Lat 39°09'24", long 74°42'00", Cape May County, on bulkhead at west end of 44th Street in Sea Isle City.	1978‡, 1979-82	11-15-81	5.89
01411360	Great Channel at Stone Harbor, NJ	Lat 39°03'26", long 74°45'53", Cape May County, on bulkhead piling at east end of bridge at west end of Borough of Stone Harbor, 3.7 mi (6.0 km) southeast of Cape May Court House, and 3.9 mi (6.3 km) southwest of Avalon.	1965-82	11-15-81	4.84
01411390	Cape May Harbor at Cape May, NJ	Lat 38°56'54", long 74°53'26", Cape May County, on grounds of U.S. Coast Guard Receiving Center in Cape May, and 0.7 mi (1.1 km) southeast of east end of Cape May Canal.	1965-82	10-25-81	6.86

* National Geodetic Vertical Datum of 1929 (NGVD).
† Not determined.
‡ Operated as a continuous record gaging station.
a Revised.
b Gage datum; not National Geodetic Vertical Datum of 1929 datum.

ATLANTIC COUNTY

391821074320701. Local I.D., Longport Obs. NJ-WRD Well Number, 01-0366.
LOCATION.--Lat 39°18'21", long 74°32'08", Hydrologic Unit 02040302, 130 ft (39.6 m) southwest of intersection of 14th and Atlantic Avenues, Longport.
Owner: Longport Water Department.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 803 ft (244.8 m), screened 753 to 803 ft (229.5 to 244.8 m).
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, August 1924 to September 1975.
DATUM.--Land-surface datum is 6.35 ft (1.935 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.16 ft (0.963 m) above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation. Land-surface datum prior to January 1975, 1.35 ft (0.411 m) lower. Lowest water level of record, 112.75 ft (34.366 m) on September 3-4, 1973, published in WSP 2164, was in error. The highest water level measured in this well was 14.00 ft (4.267 m) above land-surface datum when drilled in 1895.
PERIOD OF RECORD.--August 1924 to September 1975, May 1977 to current year. Records for 1977 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.95 ft (6.081 m) below land-surface datum, Jan. 28, 1925; lowest, 106.35 ft (32.415 m) below land-surface datum, Aug. 22, 1972, revised.
EXTREMES FOR CURRENT YEAR.--Highest water level, 55.41 ft (16.889 m) below land-surface datum, between Mar. 17 and June 3; lowest, 71.04 ft (21.653 m) below land-surface datum, between June 3 and Oct. 5, 1982.

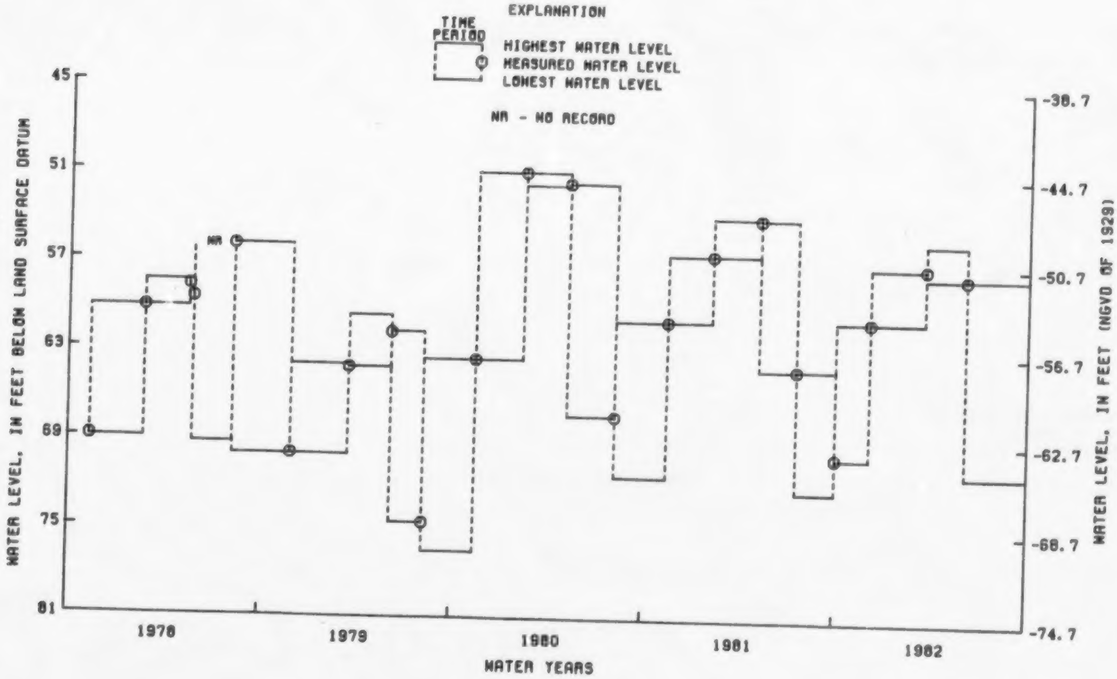
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1981 TO DEC. 3, 1981	60.73	69.97
DEC. 3, 1981 TO MAR. 17, 1982	57.04	60.73
MAR. 17, 1982 TO JUNE 3, 1982	55.41	57.69
JUNE 3, 1982 TO OCT. 5, 1982	57.66	71.04

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 3, 1981	60.73
MAR. 17, 1982	57.04
JUNE 3, 1982	57.68
OCT. 5, 1982	69.48



ATLANTIC COUNTY

391827074371001. Local I.D., Jobs Point Obs. NJ-WRD Well Number, 01-0578.

LOCATION.--Lat 39°18'26", long 74°37'09", Hydrologic Unit 02040302, on the west side of the Garden State Parkway at interchange 29, Somers Point.

Owner: U.S. Geological Survey.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 680 ft (207.3 mm), screened 670 to 680 ft (204.2 to 207.3 m).

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, October 1959 to June 1975.

DATUM.--Land-surface datum is 10.00 ft (3.048 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 9.62 ft (2.932 m) above land-surface datum.

REMARKS.--Water level affected by tidal fluctuation.

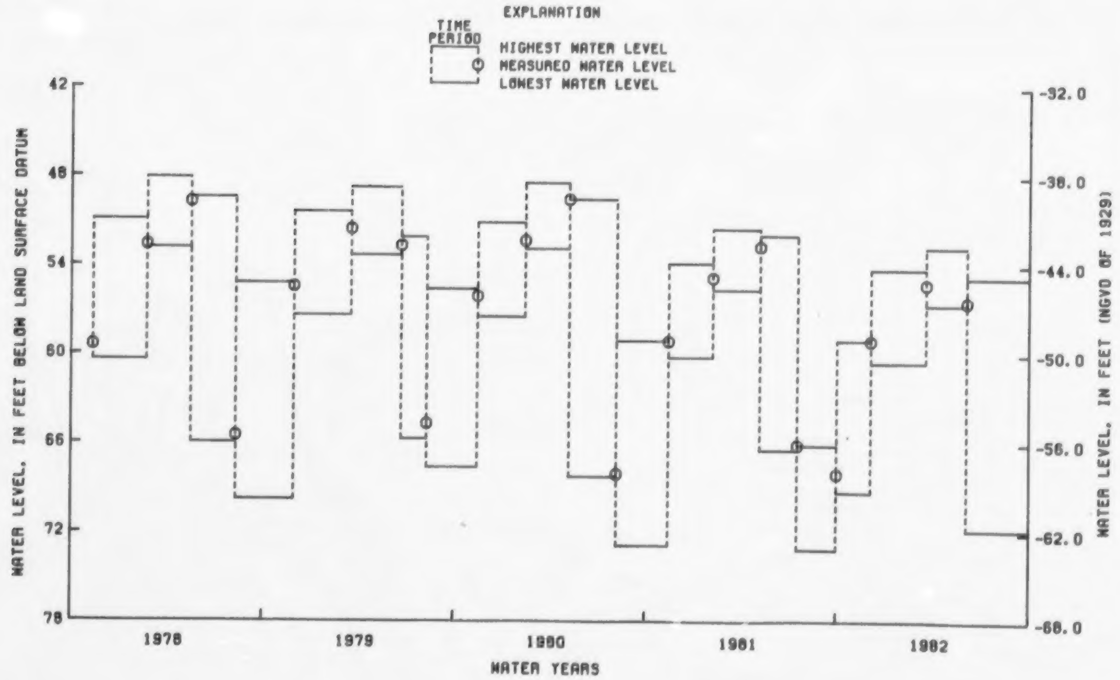
PERIOD OF RECORD.--October 1959 to June 1975, May 1977 to current year. Records for 1975 to 1980 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.10 ft (8.870 m) below land-surface datum, April 13, 1961; lowest, 73.13 ft (22.290 m) below land-surface datum, between July 16 and Sept. 29, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level, 52.72 ft (16.069 m) below land-surface datum, between Mar. 17 and June 3; lowest, 71.79 ft (21.882 m) below land-surface datum, between June 3 and Oct. 5, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 29, 1981 TO DEC. 3, 1981	58.98	69.23	DEC. 3, 1981	59.01
DEC. 3, 1981 TO MAR. 17, 1982	54.19	60.50	MAR. 17, 1982	55.21
MAR. 17, 1982 TO JUNE 3, 1982	52.72	56.61	JUNE 3, 1982	56.41
JUNE 3, 1982 TO OCT. 5, 1982	54.78	71.79	OCT. 5, 1982	65.48



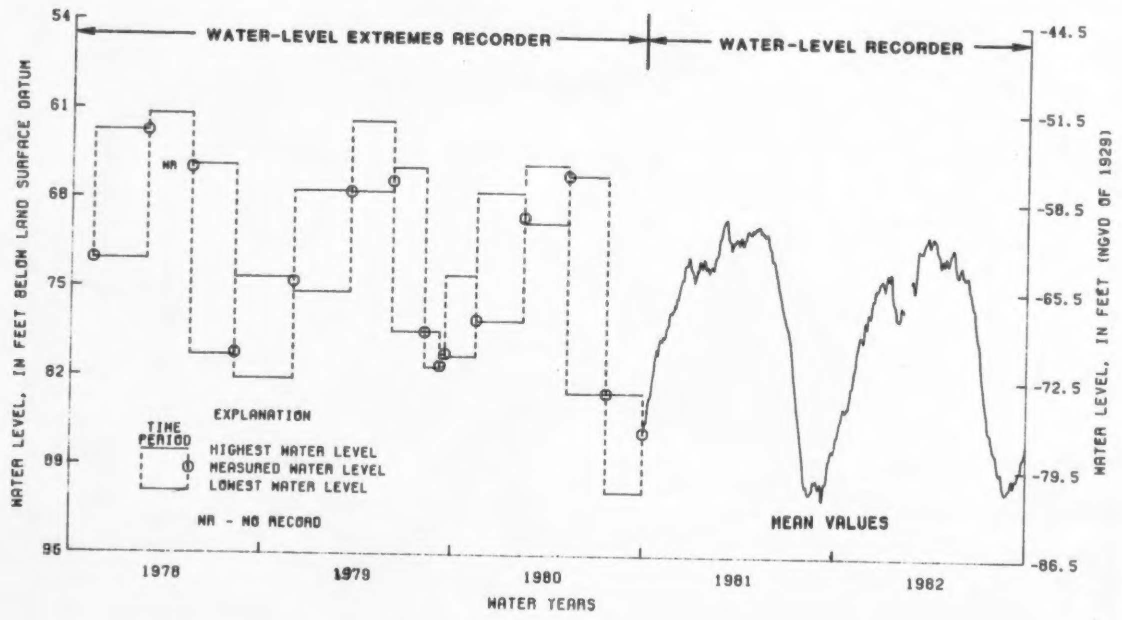
ATLANTIC COUNTY

392153074250101. Local I.D., Galen Hall Obs. NJ-WRD Well Number, 01-0037.
LOCATION.--Lat 39°21'51", long 74°24'59", Hydrologic Unit 02040302, near the intersection of Pacific and Congress Avenues, Atlantic City.
Owner: Atlantic City Municipal Utilities Authority.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 837 ft (255.1 m), screened 782 to 837 ft (238.4 to 255.1 m).
INSTRUMENTATION.--Water-level recorder. May 1977 to July 1980, water-level extremes recorder.
DATUM.--Land-surface datum is 9.54 ft (2.908 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 0.90 ft (0.274 m) above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--January 1949 to August 1975, May 1977 to current year. Records for 1949 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.58 ft (16.026 m) below land-surface datum, Mar. 7, 1962; lowest, 96.96 ft (29.553 m) below land-surface datum, Sept. 23, 1970.
EXTREMES FOR CURRENT YEAR.--Highest water level, 70.43 ft (21.467 m) below land-surface datum, Mar. 26; lowest, 90.81 ft (27.679 m) below land-surface datum, Aug. 22.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	86.45	81.71	76.83	74.12	---	72.90	70.94	72.47	73.81	80.69	88.13	89.83
10	85.20	80.26	75.93	73.77	---	71.73	71.10	71.79	73.82	82.64	89.17	89.59
15	84.47	78.96	75.22	73.53	---	71.84	72.04	71.98	74.93	84.26	89.51	89.18
20	84.46	78.74	74.84	75.91	---	71.12	72.82	73.60	76.08	85.96	90.57	88.93
25	84.23	77.94	74.23	77.08	73.96	70.70	72.74	73.36	77.42	86.34	90.61	87.88
EOM	82.51	77.82	74.43	77.24	74.99	71.15	72.37	73.64	78.80	87.48	90.28	86.98
MEAN	84.80	79.56	75.40	75.21	---	71.80	71.86	72.72	75.45	84.07	89.57	88.97

WTR YR 1982 MEAN 78.92 HIGH 70.51 MAR 26 LOW 90.73 AUG 22



ATLANTIC COUNTY

392436074303501. Local I.D., Atlantic City W.D. 600 Obs. NJ-WRD Well Number, 01-0566.

LOCATION.--Lat 39°24'34", long 74°30'32", Hydrologic Unit 02040302, at the pumping station on Route 585 between Absecon and Pleasantville.

Owner: Atlantic City Municipal Utilities Authority.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 565 ft (172.2 m), revised, length of screen unknown.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, March 1925 to May 1940, February 1950 to August 1974.

DATUM.--Land-surface datum is 11.68 ft (3.560 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 3.08 ft (0.939 m) above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.--March 1925 to May 1940, February 1950 to August 1974, May 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.83 ft (4.520 m) below land-surface datum, May 28, 1925; lowest, 61.88 ft (18.861 m) below land-surface datum, Oct. 10, 1970.

EXTREMES FOR CURRENT YEAR.--Highest water level, 52.98 ft (16.148 m) below land-surface datum, between Mar. 17 and June 3; lowest, 59.28 ft (18.069 m) below land-surface datum, between Sept. 29 and Dec. 3, 1981.

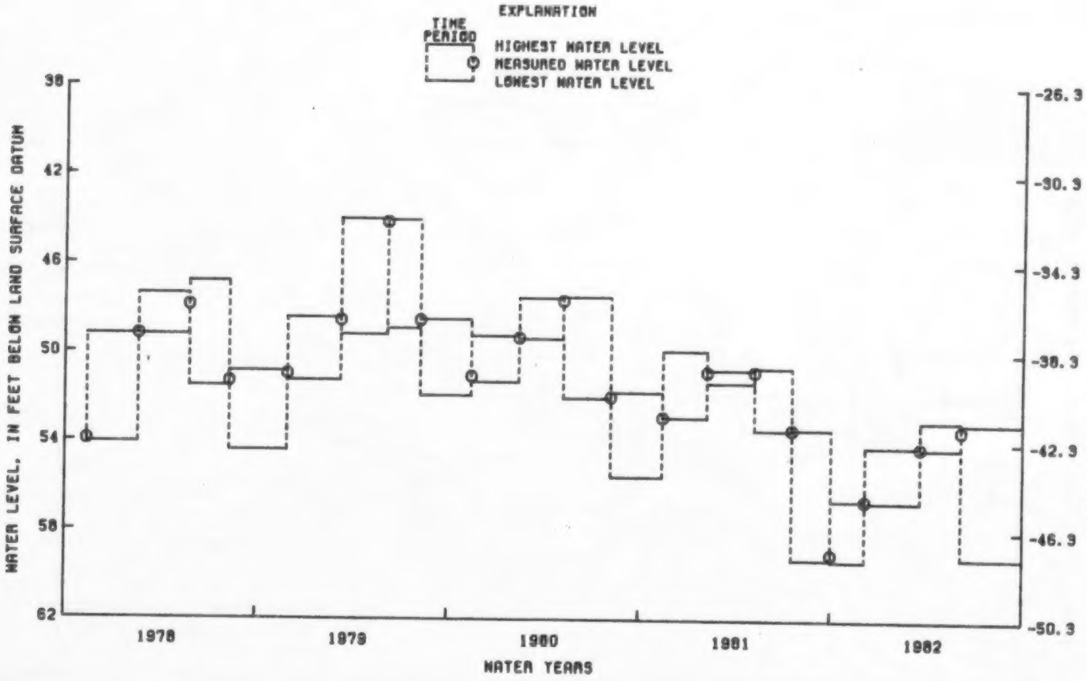
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1981 TO DEC. 3, 1981	56.54	59.28
DEC. 3, 1981 TO MAR. 17, 1982	54.12	56.62
MAR. 17, 1982 TO JUNE 3, 1982	52.98	54.21
JUNE 3, 1982 TO OCT. 5, 1982	53.07	59.13

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 3, 1981	56.54
MAR. 17, 1982	54.15
JUNE 3, 1982	53.37
OCT. 5, 1982	58.90



ATLANTIC COUNTY

392754074270101. Local I.D., Oceanville 1 Obs. NJ-WRD Well Number, 01-0180.

LOCATION.--Lat 39°27'54", long 74°27'01", Hydrologic Unit 02040302, at Brigantine National Wildlife Refuge, Oceanville.

Owner: U.S. Geological Survey.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 570 ft (173.7 m), screened 560 to 570 ft (170.7 to 173.7 m).

INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, October 1959 to August 1975.

DATUM.--Land-surface datum is 27.17 ft (8.281 m), revised, above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.50 ft (0.762 m) above land-surface datum.

REMARKS.--Water level affected by tidal fluctuation. Land-surface datum prior to January 1975, 0.08 ft (0.0243 m) higher.

PERIOD OF RECORD.--October 1959 to August 1975, April 1977 to current year. Records from 1959 to 1974 were published in WSP 1977, 2140, and 2164. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.62 ft (10.247 m) below land-surface datum, April 13, 1961; lowest, 63.00 ft (19.202 m) below land-surface datum, between May 5 and Sept. 29, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level, 56.74 ft (17.294 m) below land-surface datum, between June 3 and Oct. 5; lowest, 62.99 ft (19.199 m) below land-surface datum, between Sept. 29 and Dec. 3, 1981.

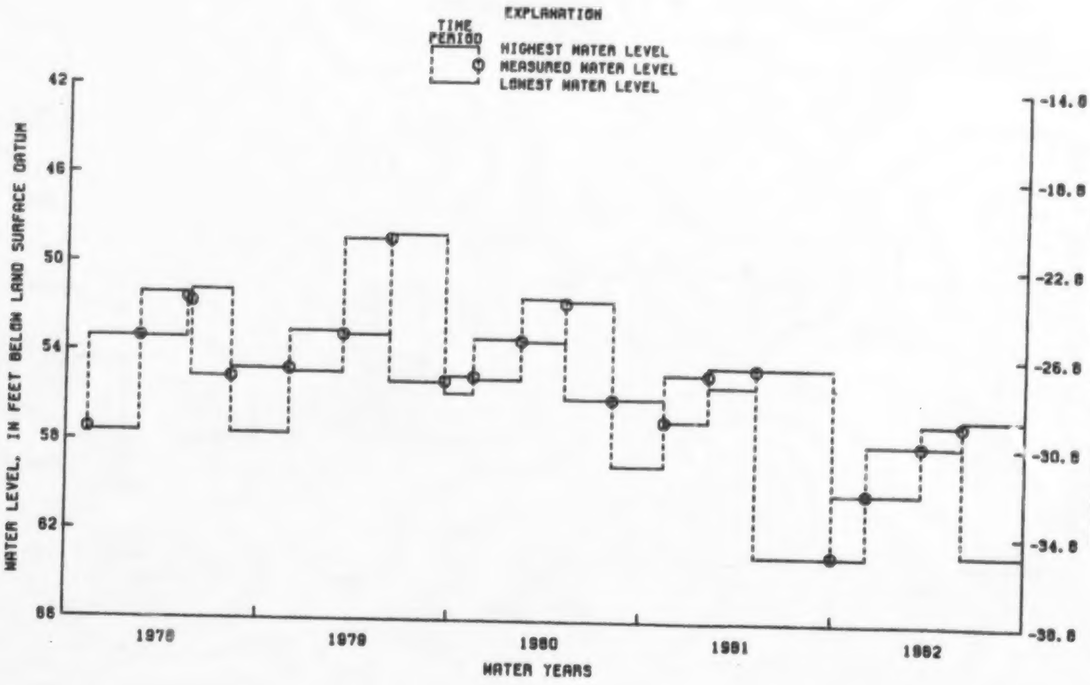
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1981 TO DEC. 3, 1981	60.12	62.99
DEC. 3, 1981 TO MAR. 17, 1982	57.93	60.14
MAR. 17, 1982 TO JUNE 3, 1982	56.99	57.96
JUNE 3, 1982 TO OCT. 5, 1982	56.74	62.83

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 3, 1981	60.12
MAR. 17, 1982	57.96
JUNE 3, 1982	57.02
OCT. 5, 1982	62.64



ATLANTIC COUNTY

393333074442401. Local I.D., Scholler 1 Obs. NJ-WRD Well Number, 01-0256.

LOCATION.--Lat 39°33'33", long 74°44'26", Hydrologic Unit 02040302, at Scholler Brothers plant, near intersection of Weymouth and Second Roads, Elwood.

Owner: Scholler Brothers Incorporated.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in (203 mm), depth 275 ft (83.8 m), screened 254 to 275 ft (77.4 to 83.8 m).

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, April 1962 to August 1975.

DATUM.--Land-surface datum is 93.19 ft (28.404 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.95 ft (0.899 m) above land-surface datum.

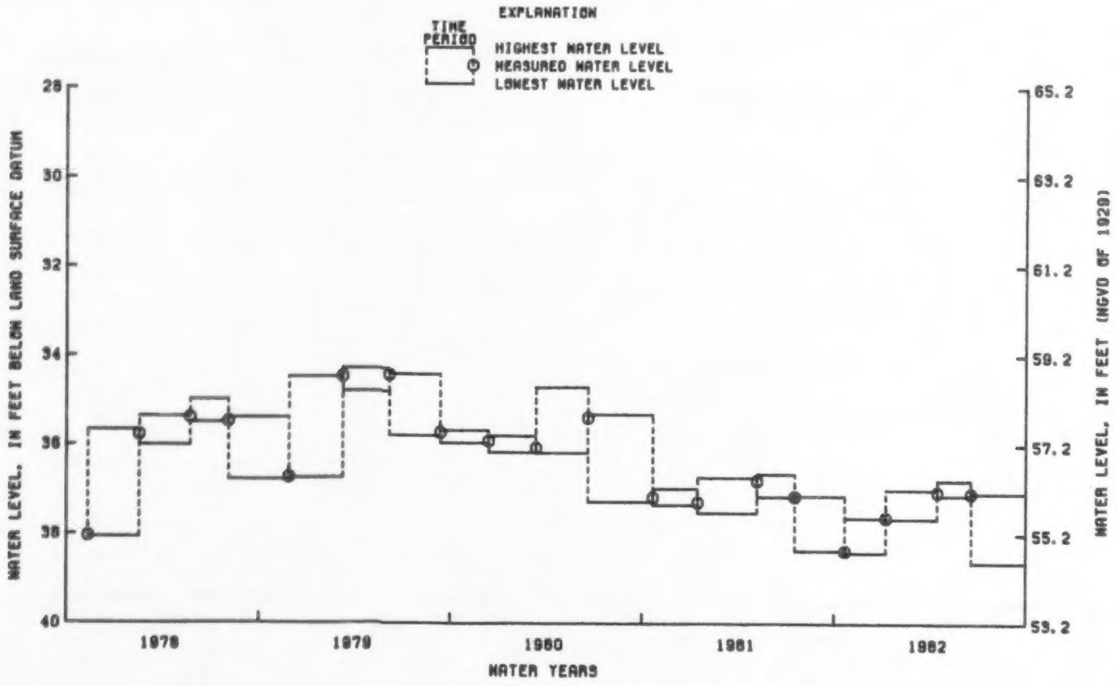
PERIOD OF RECORD.--April 1962 to August 1975, May 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.18 ft (8.284 m) below land-surface datum, Mar. 20, 1963; lowest, 39.56 ft (12.058 m) below land-surface datum, Sept. 13, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level, 36.78 ft (11.211 m) below land-surface datum, between Apr. 14 and June 17; lowest, 38.63 ft (11.774 m) below land-surface datum, between June 17 and Oct. 14, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 20, 1981 TO JAN. 6, 1982	37.62	38.41	JAN. 6, 1982	37.62
JAN. 6, 1982 TO APR. 14, 1982	36.99	37.65	APR. 14, 1982	37.04
APR. 14, 1982 TO JUNE 17, 1982	36.78	37.12	JUNE 17, 1982	37.07
JUNE 17, 1982 TO OCT. 14, 1982	37.07	38.63	OCT. 14, 1982	38.59



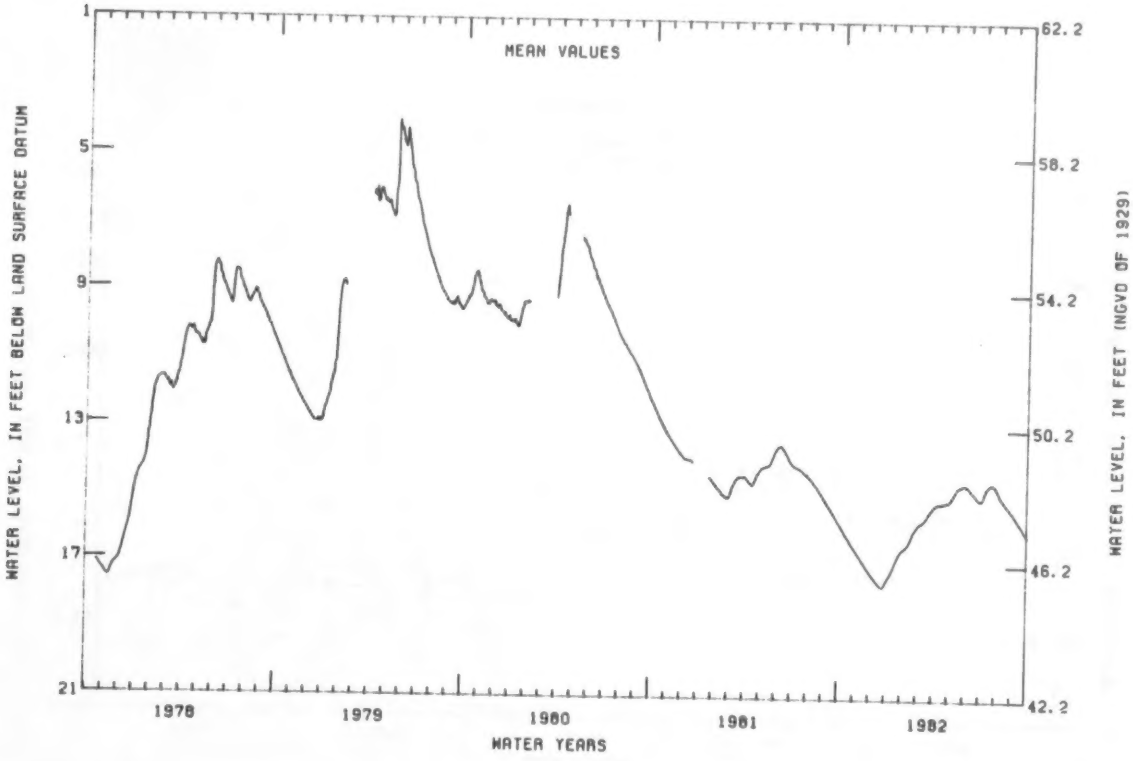
BURLINGTON COUNTY

394106074362501. Local I.D., Mount at Mount Obs. NJ-WRD Well Number, 05-0570.
LOCATION.--Lat 39°41'06", long 74°36'23", Hydrologic Unit 02040301, at Mount in Wharton State Forest.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in (203 mm), depth 25 ft (7.6 m), open-end cement casing.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 63.24 ft (19.276 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top of cement casing, 0.60 ft (0.180 m) above land-surface datum.
PERIOD OF RECORD--September 1955 to July 1970, October 1977 to current year. Periodic manual measurements, October 1970 to September 1977. Records for September 1955 to September 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.92 ft (0.890 m) below land-surface datum, Aug. 26, 1958; lowest, 18.51 ft (5.642 m) below land-surface datum, Oct. 2, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 14.55 ft (4.435 m) below land-surface datum, July 22-24; lowest, 17.62 ft (5.371 m) below land-surface datum, Dec. 24.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.89	16.64	17.31	17.32	16.46	15.75	15.19	15.01	14.61	14.98	14.84	15.50
10	16.02	16.76	17.40	17.18	16.37	15.70	15.16	14.87	14.71	14.76	14.98	15.61
15	16.15	16.87	17.50	16.99	16.23	15.63	15.16	14.74	14.81	14.63	15.08	15.72
20	16.26	16.98	17.59	16.80	16.04	15.52	15.13	14.65	14.89	14.56	15.18	15.84
25	16.39	17.10	17.61	16.64	15.91	15.39	15.11	14.61	14.99	14.57	15.27	15.96
EOM	16.53	17.21	17.45	16.51	15.84	15.26	15.09	14.58	15.03	14.68	15.39	16.08
MEAN	16.17	16.88	17.45	16.95	16.21	15.57	15.15	14.77	14.81	14.71	15.08	15.74

WTR YR 1982 MEAN 15.78 HIGH 14.55 JUL 22 AND OTHERS LOW 17.62 DEC 24

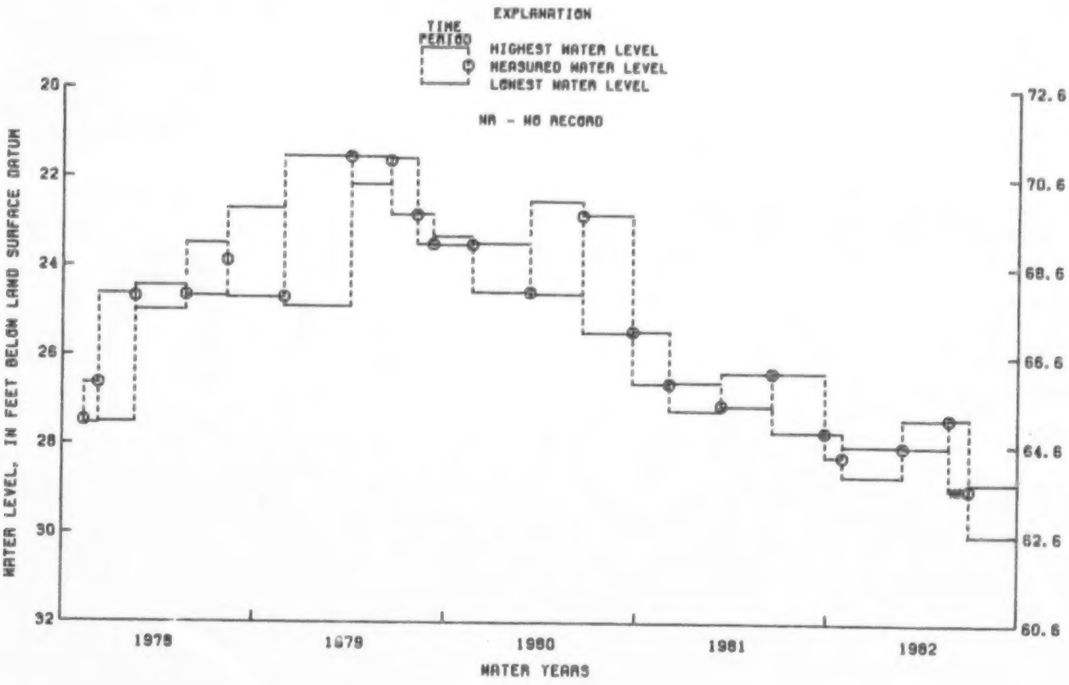


BURLINGTON COUNTY

394208074264502. Local I.D., Oswego Lake 2 Obs. NJ-WRD Well Number, 05-0030.
LOCATION.--Lat 39°42'08", long 74°26'45", Hydrologic Unit 02040301, on the east side of Andrews Road, about 3.0 mi (4.8 km) southeast of Oswego Lake, Bass River Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in (203 mm), depth 345 ft (105.2 m), screened 335 to 345 ft (102.1 to 105.2 m).
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, February 1962 to July 1970.
DATUM.--Land-surface datum is 92.59 ft (28.221 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.14 ft (0.652 m) above land-surface datum.
PERIOD OF RECORD.--February 1962 to July 1970, April 1977 to current year. Periodic manual measurements, September 1970 to August 1976. Records for 1962 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.03 ft (6.410 m) below land-surface datum, July 11, 1973; lowest, 30.01 ft (9.147 m) below land-surface datum, between June 28 and Nov. 2, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 27.37 ft (8.342 m) below land-surface datum, between May 20 and June 28; lowest, 30.01 ft (9.147 m) below land-surface datum, between June 28 and Nov. 2, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1981 TO OCT. 29, 1981	27.70	28.25	OCT. 29, 1981	28.25
OCT. 29, 1981 TO FEB. 22, 1982	28.00	28.69	FEB. 22, 1982	28.02
FEB. 22, 1982 TO MAY 20, 1982	27.39	28.02	MAY 20, 1982	27.39
MAY 20, 1982 TO JUNE 28, 1982	27.37	---	JUNE 28, 1982	28.97
JUNE 28, 1982 TO NOV. 2, 1982	28.83	30.01	NOV. 2, 1982	30.00



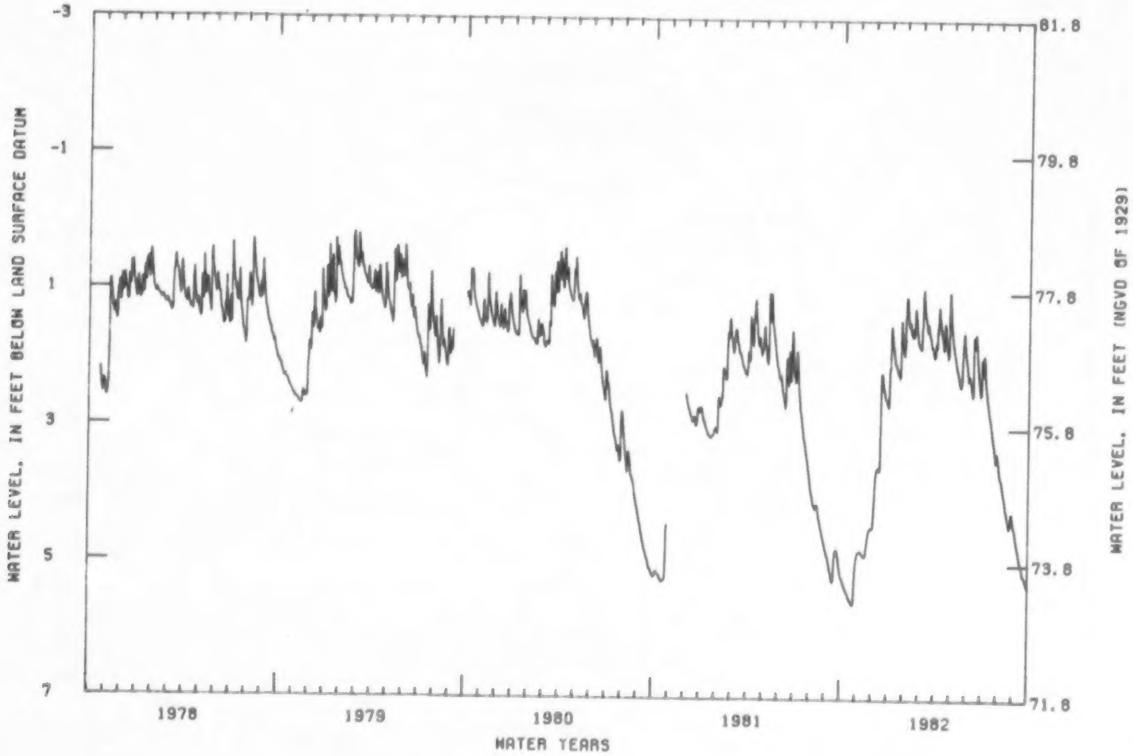
BURLINGTON COUNTY

394452074281901. Local I.D., Penn State Forest Shallow Obs. NJ-WRD Well Number, 05-0628.
LOCATION.--Lat 39°44'52", long 74°28'19", Hydrologic Unit 02040301, on the west side of Cabin Road, about 500 ft (152 m) south of intersection with Sooy Road in Penn State Forest, Washington Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in (152 mm), depth 12 ft (3.7 m), open-end steel casing.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 78.78 ft (24.012 m), revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.70 ft (0.823 m) above land-surface datum.
REMARKS.--Well deepened from 10 to 12 ft (3.0 to 3.7 m) in July 1963. Measuring point prior to July 1963, top of coupling, 0.11 ft (0.034 m) above land-surface datum.
PERIOD OF RECORD.--December 1936 to January 1975, October 1977 to current year. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.11 ft (0.034 m) above land-surface datum (flowing), several times, 1959-1962; lowest, 5.92 ft (1.804 m) below land-surface datum, Dec. 11, 1965.
EXTREMES FOR CURRENT YEAR.--Highest water level, 0.85 ft (0.259 m) below land-surface datum, Mar. 7-8; lowest, 5.60 ft (1.707 m) below land-surface datum, Oct. 24-26.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.27	4.81	3.90	1.48	1.24	1.50	1.59	1.77	2.28	2.00	3.72	4.62
10	5.37	4.84	3.57	1.88	1.42	1.26	1.44	2.01	2.41	2.53	3.88	4.80
15	5.46	4.88	3.30	2.08	1.64	1.54	1.76	2.19	1.63	2.81	4.12	4.99
20	5.54	4.68	2.34	2.20	1.22	1.63	1.57	2.38	1.83	3.06	4.33	5.15
25	5.60	4.47	2.55	1.51	1.68	1.80	1.95	1.66	2.33	3.34	4.40	5.23
EOM	4.90	4.47	2.68	1.82	1.77	1.92	1.34	2.00	1.97	3.43	4.41	5.33
MEAN	5.36	4.72	3.11	1.93	1.48	1.59	1.57	1.96	2.14	2.80	4.08	4.96

WTR YR 1982 MEAN 2.98 HIGH .94 MAR 8 LOW 5.60 OCT 25



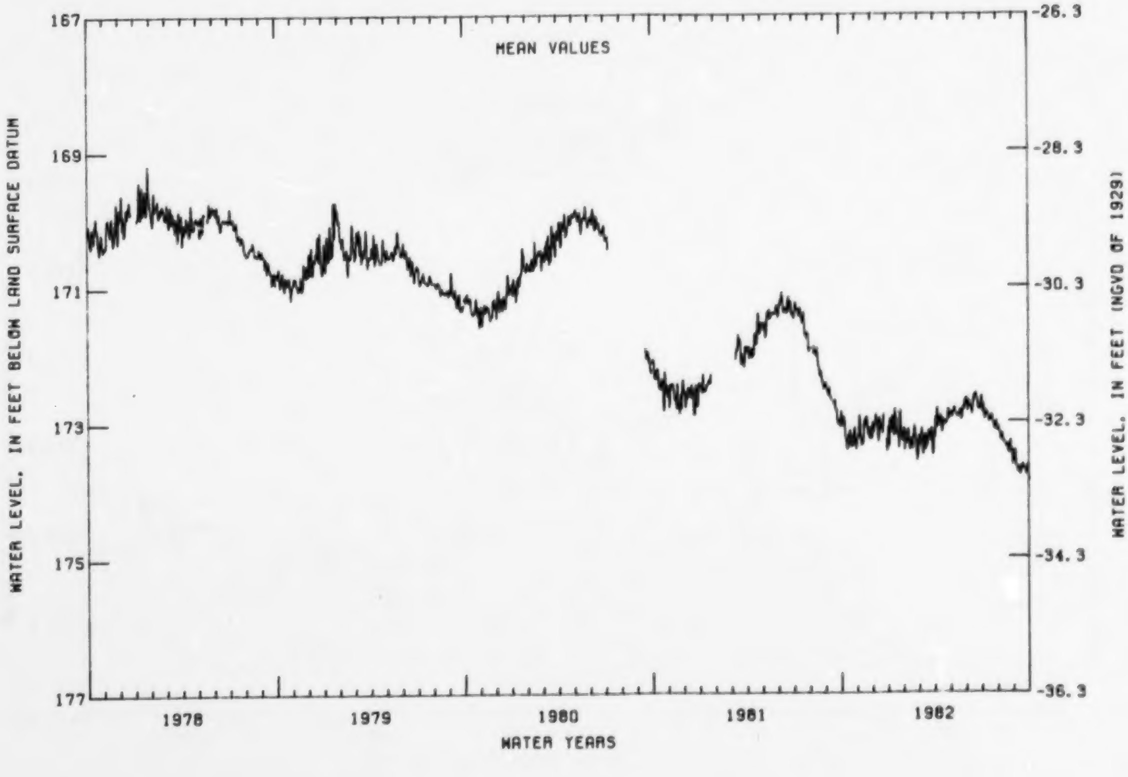
BURLINGTON COUNTY

395122074301701. Local I.D., Butler Place 1 Obs. NJ-WRD Well Number, 05-0683.
LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township. Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 2,117 ft (645.3 m), screened 2,102 to 2,117 ft (640.7 to 645.3 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 140.66 ft (42.873 m), revised, above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 2.80 ft (0.850 m) above land-surface datum.
PERIOD OF RECORD.--October 1964 to August 1975, March 1977 to current year. Records for 1964 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 143.20 ft (43.647 m) below land-surface datum, Feb. 25, 1965; lowest, 173.79 ft (52.971 m) below land-surface datum, Sept. 29-30, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 172.41 ft (52.551 m) below land-surface datum, June 19; lowest, 173.79 ft (52.971 m) below land-surface datum, Sept. 29-30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	172.98	173.10	173.01	173.00	173.24	173.15	173.01	172.85	172.60	172.82	173.10	173.57
10	173.14	173.26	172.87	172.88	173.14	173.40	172.97	172.73	172.72	172.79	173.12	173.59
15	173.25	172.93	172.85	172.84	173.25	173.33	173.06	172.84	172.61	172.91	173.25	173.57
20	173.28	172.84	173.06	173.07	173.05	173.18	172.93	172.73	172.55	172.80	173.26	173.57
25	173.27	173.10	---	172.94	173.36	173.12	172.92	172.71	172.73	173.02	173.18	173.67
EOM	173.32	173.17	173.31	173.01	173.38	173.12	172.83	172.58	172.53	172.98	173.50	173.77
MEAN	173.10	173.06	173.01	173.02	173.20	173.20	172.91	172.77	172.64	172.86	173.24	173.59

WTR YR 1982 MEAN 173.05 HIGH 172.48 JUN 19 LOW 173.77 SEP 30



BURLINGTON COUNTY

395122074301702. Local I.D., Butler Place 2 Obs. NJ-WRD Well Number, 05-0684.
LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township. Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in (102 mm), depth 170 ft (51.8 m), screened 160 to 170 ft (48.8 to 51.8 m).
INSTRUMENTATION.--Water-level extremes recorder, March 1977 to current year. Water-level recorder, May 1965 to April 1975.
DATUM.--Land-surface datum is 140.82 ft (42.922 m) above National Geodetic Vertical Datum of 1929. Measuring point: Front edge of cutout in recorder housing, 2.67 ft (0.814 m) above land-surface datum.
PERIOD OF RECORD.--May 1965 to April 1975, March 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.14 ft (4.615 m) below land-surface datum, Feb. 15, 1973; lowest, 23.06 ft (7.029 m) below land-surface datum, Feb. 9, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 20.02 ft (6.102 m) below land-surface datum, between June 2 and Sept. 29; lowest, 22.27 ft (6.788 m) below land-surface datum, between Sept. 25 and Dec. 23, 1981.

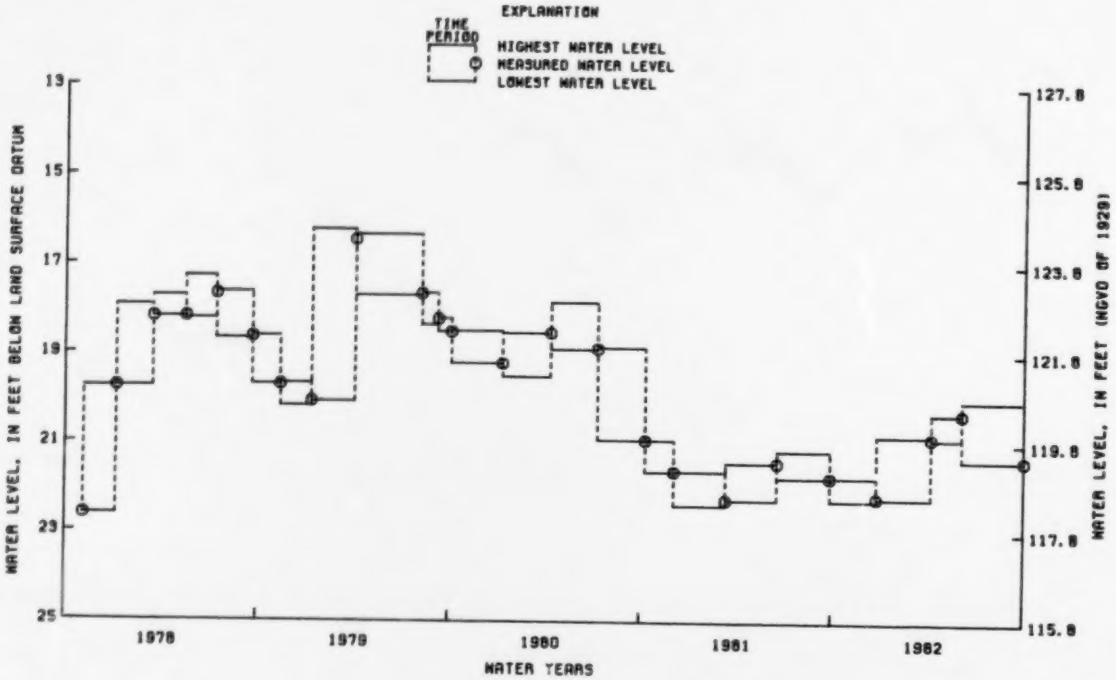
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 25, 1981 TO DEC. 23, 1981	21.75	22.27
DEC. 23, 1981 TO APR. 5, 1982	20.81	22.22
APR. 5, 1982 TO JUNE 2, 1982	20.31	20.88
JUNE 2, 1982 TO SEPT. 29, 1982	20.02	21.36

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 23, 1981	22.20
APR. 5, 1982	20.85
JUNE 2, 1982	20.31
SEPT. 29, 1982	21.35

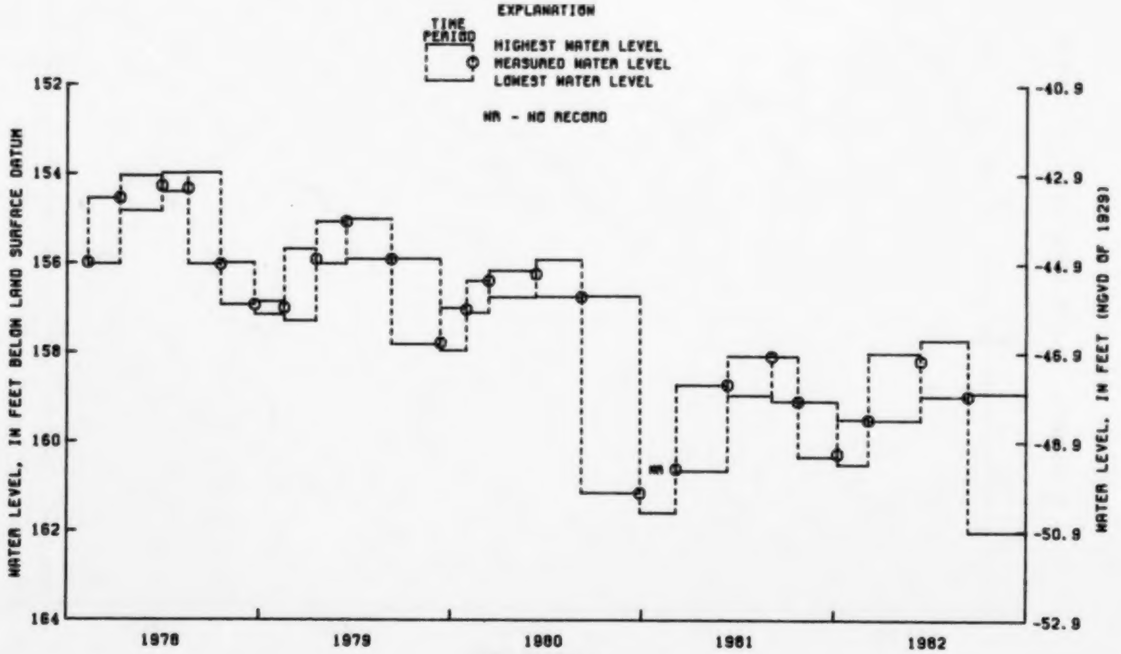


CAMDEN COUNTY

394215074561701. Local I.D., New Brooklyn 1 Obs. NJ-WRD Well Number, 07-0476.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft (270 m) upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in (102 mm), depth 1,505 ft (458.7 m), screened 1,485 to 1,495 ft (452.6 to 455.7 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, February 1963 to August 1975.
DATUM.--Land-surface datum is 111.13 ft (33.872 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.30 ft (0.701 m) above land-surface datum.
PERIOD OF RECORD.--February 1963 to August 1975, February 1977 to current year. Records for 1963 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.16 ft (36.625 m) below land-surface datum, March 6, 1963; lowest, 162.02 ft (49.384 m) below land-surface datum, between June 10 and Oct. 8, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 157.71 ft (48.070 m) below land-surface datum, between Mar. 12 and June 10; lowest, 162.02 ft (49.384 m) below land-surface datum, between June 10 and Oct. 8, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 6, 1981 TO DEC. 4, 1981	159.49	160.51	DEC. 4, 1981	159.50
DEC. 4, 1981 TO MAR. 12, 1982	158.00	159.51	MAR. 12, 1982	158.18
MAR. 12, 1982 TO JUNE 10, 1982	157.71	158.98	JUNE 10, 1982	158.97
JUNE 10, 1982 TO OCT. 8, 1982	158.90	162.02	OCT. 8, 1982	161.94



CAMDEN COUNTY

394215074561702. Local I.D., New Brooklyn Park 2 Obs. NJ-WRD Well Number, 07-0477.

LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft (270 m) upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 849 ft (258.8 m), screened 829 to 839 ft (252.7 to 255.7 m), revised.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 111.13 ft (33.872 m), revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.30 ft (1.010 m) above land-surface datum.

PERIOD OF RECORD.--January 1963 to August 1975, March 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.

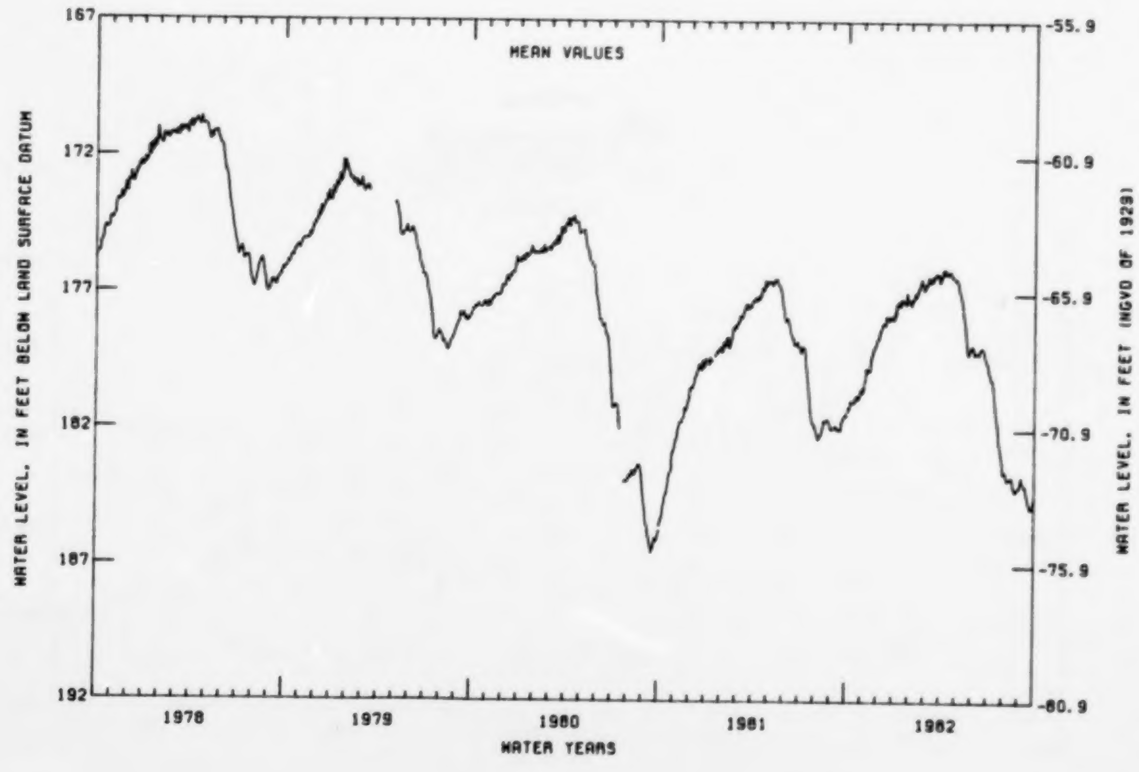
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.54 ft (40.093 m) below land-surface datum, Mar. 6, 1963; lowest, 186.55 ft (56.860 m) below land-surface datum, Sept. 16, 1980.

EXTREMES FOR CURRENT YEAR.--Highest water level, 175.92 ft (53.620 m) below land-surface datum, Apr. 6; lowest, 184.90 ft (56.358 m) below land-surface datum, Sept. 21-22.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	181.11	180.01	178.25	177.37	177.23	176.48	176.23	176.85	179.12	180.09	183.67	183.93
10	180.97	179.83	178.01	177.24	176.96	176.57	176.21	177.18	179.13	180.36	183.76	184.02
15	180.86	179.44	177.78	177.17	176.84	176.52	176.25	177.91	179.02	181.33	183.69	184.44
20	180.87	178.97	177.91	177.23	176.48	176.30	176.26	178.82	178.99	182.08	184.10	184.77
25	180.70	178.82	177.90	177.08	176.75	176.27	176.41	179.04	179.35	182.84	184.10	184.76
EOM	180.59	178.64	177.87	177.17	176.76	176.34	176.47	178.89	179.57	183.53	184.00	184.50
MEAN	180.85	179.41	178.00	177.29	176.88	176.42	176.25	177.99	179.16	181.50	183.89	184.36

WTR YR 1982 MEAN 179.35 HIGH 176.02 APR 6 LOW 184.88 SEP 22



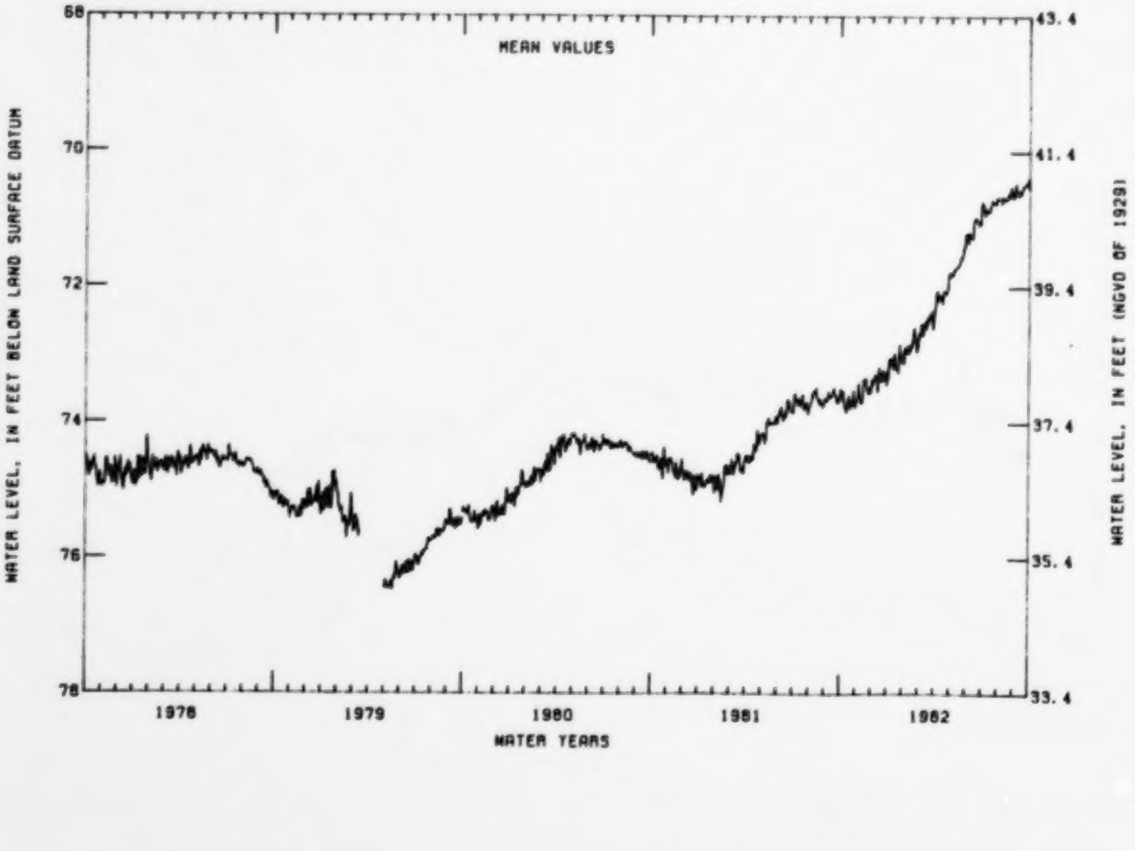
CAMDEN COUNTY

394215074561703. Local I.D., New Brooklyn Park 3 Obs. NJ-WRD Well Number, 07-0478.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft (270 m) upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 540 ft (165 m), revised, screened 520 to 530 ft (158 to 162 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 111.45 ft (33.970 m), revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch coupling, 2.10 ft (0.640 m) above land-surface datum.
PERIOD OF RECORD.--December 1962 to August 1975, March 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.53 ft (17.840 m) below land-surface datum, Dec. 18, 1962; lowest, 76.49 ft (23.314 m) below land-surface datum, May 17-18, 1979.
EXTREMES FOR CURRENT YEAR.--Highest water level, 70.37 ft (21.449 m) below land-surface datum, Sept. 27; lowest, 73.86 ft (22.513 m) below land-surface datum, Oct. 13-14.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.66	73.62	73.42	73.05	72.98	72.65	72.22	71.83	71.24	70.88	70.71	70.61
10	73.74	73.71	73.32	73.04	72.85	72.71	72.15	71.70	71.25	70.85	70.65	70.59
15	73.78	73.49	73.30	72.97	72.91	72.61	72.20	71.67	71.02	70.87	70.69	70.54
20	73.75	73.35	73.34	73.15	72.67	72.49	72.06	71.56	70.98	70.70	70.64	70.49
25	73.76	73.52	73.38	72.96	72.82	72.44	72.04	71.46	71.08	70.77	70.51	70.48
EOM	73.78	73.56	73.45	72.98	72.87	72.42	71.82	71.19	70.72	70.69	70.65	70.54
MEAN	73.68	73.54	73.36	73.11	72.86	72.55	72.09	71.61	71.10	70.79	70.66	70.53

WTR YR 1982 MEAN 72.15 HIGH 70.38 SEP 27 LOW 73.85 OCT 13 AND OTHERS

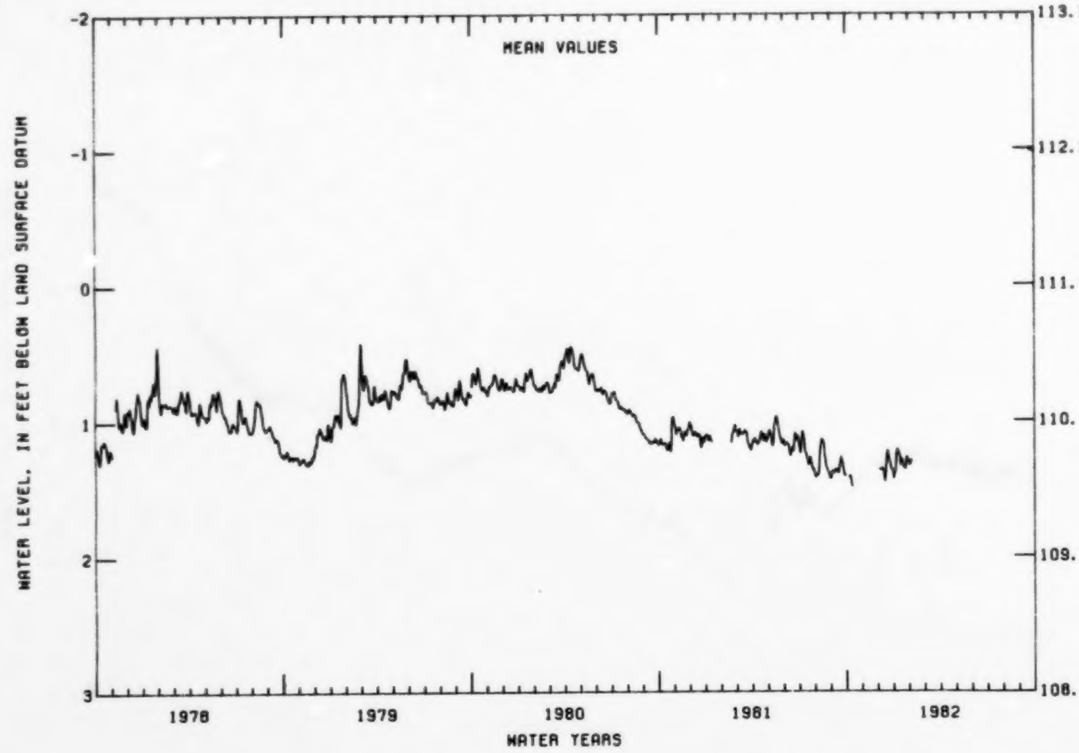


CAMDEN COUNTY

394215074561704. Local I.D., New Brooklyn Park 4 Obs. NJ-WRD Well Number, 07-0479.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft (270 m) upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in (152 mm), depth 210 ft (64.0 m), screened 200 to 210 ft (61.0 to 64.0 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 111.24 ft (33.906 m), revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch coupling, 2.30 ft (0.700 m) above land-surface datum.
REMARKS.--Water level affected by stage of New Brooklyn Lake.
PERIOD OF RECORD.--December 1962 to August 1975, March 1977 to January 1982 (discontinued). Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.41 ft (0.125 m) below land-surface datum, Feb. 27, 1979; lowest, 2.28 ft (0.695 m) below land-surface datum, Aug. 31, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 1.20 ft (0.366 m) below land-surface datum, Jan. 7; lowest, 1.50 ft (0.457 m) below land-surface datum, Oct. 12.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---		1.36	1.26								
10	1.45		1.36	1.24								
15	---		1.41	1.28								
20	---		1.24	1.34								
25	---		1.34	1.27								
EOM	---		1.43	1.33								
MEAN	---		1.35	1.30								



CAMDEN COUNTY

394440074593101. Local I.D., Winslow WC 5 Obs. NJ-WRD Well Number, 07-0503.
LOCATION.--Lat 39°44'40", long 74°59'31", Hydrologic Unit 02040302, about 1,000 ft (305 m) east of intersection of Cross Keys-Berlin and Erial-Williamstown Roads, Winslow Township.
Owner: Winslow Water Company.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in (152 mm), depth 76 ft (23.2 m), screened 71 to 76 ft (21.6 to 23.2 m).
INSTRUMENTATION.--Water-level extremes recorder, November 1977 to current year. Water-level recorder, December 1972 to September 1977.
DATUM.--Land-surface datum is 173.26 ft (52.810 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.16 ft (0.35 m) above land-surface datum.
PERIOD OF RECORD.--December 1972 to current year. Records for 1972 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.78 ft (8.163 m) below land-surface datum, May 20-21, 1973; lowest, 38.35 ft (11.689 m) below land-surface datum, between June 3 and Oct. 6, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 35.27 ft (10.750 m) below land-surface datum, between June 10 and Oct. 8, 1982; lowest, 38.08 ft (11.607 m) below land-surface datum, between Dec. 4 and Mar. 12.

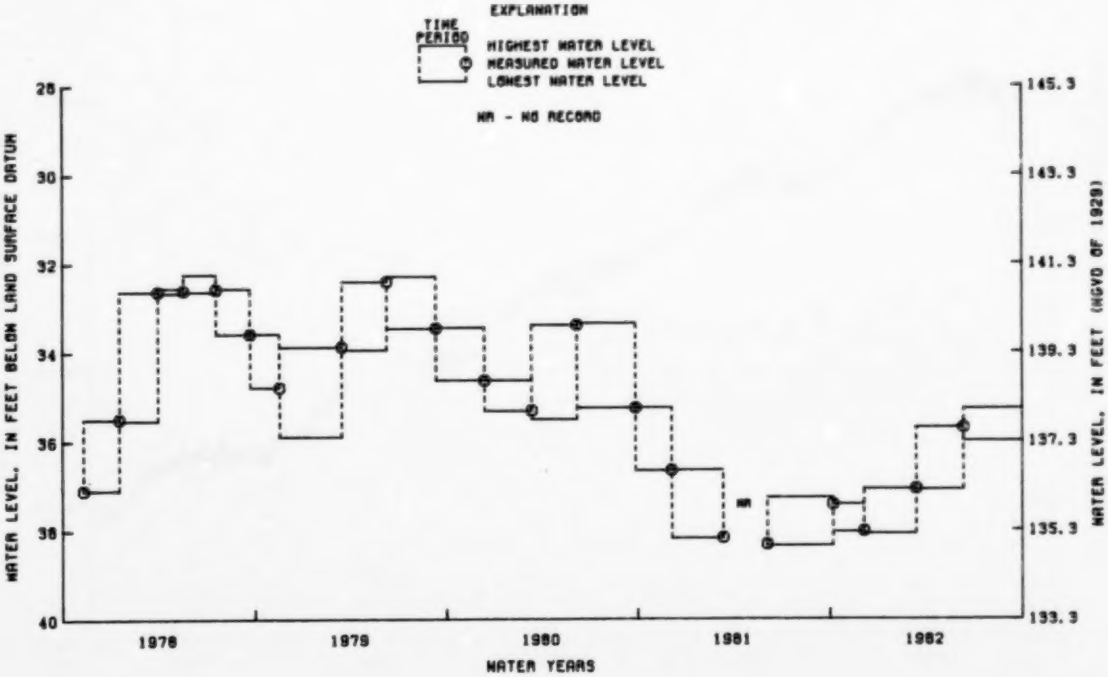
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 6, 1981 TO DEC. 4, 1981	37.42	38.04
DEC. 4, 1981 TO MAR. 12, 1982	37.07	38.08
MAR. 12, 1982 TO JUNE 10, 1982	35.69	37.09
JUNE 10, 1982 TO OCT. 8, 1982	35.27	36.00

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 4, 1981	38.02
MAR. 12, 1982	37.07
JUNE 10, 1982	35.70
OCT. 8, 1982	35.99



CUMBERLAND COUNTY

392512074521206. Local I.D., Ragovin 2100 Obs.. NJ-WRD Well Number 11-0137.

LOCATION.--Lat 39°25'12", long 74°52'12", Hydrologic Unit 02040302, in wooded area off Harriet Avenue, 1.5 mi (2.4 km) southeast of Milmay.

Owner: Sam DeRosa.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 5 in (127 mm), depth 2,093 ft (637.9 m), screened 2,083 to 2,093 ft (634.9 to 637.9 m).

INSTRUMENTATION.--Water-level recorder.

DATUM.--Altitude of land-surface datum is 85 ft (25.9 m), revised, by altimeter.

Measuring point: Top edge of recorder shelf, 2.40 ft (0.730 m) above land-surface datum.

REMARKS.--Land-surface datum prior to October 1979, 6.0 ft (1.8 m) higher. This well is screened in a saline zone of the aquifer system (Luzier, 1980, p. 8-12). An equivalent freshwater head is obtained by multiplying the column of water in the well by the ratio of density of water in the well to the density of freshwater. In 1974, the density of water was 1.011 grams per milliliter at 20°C and a plus 17 foot correction was needed to obtain the equivalent freshwater head.

PERIOD OF RECORD.--October 1974 to April 1975, February 1977 to current year. Records for 1974 to 1977 are unpublished and are available in files of New Jersey District Office.

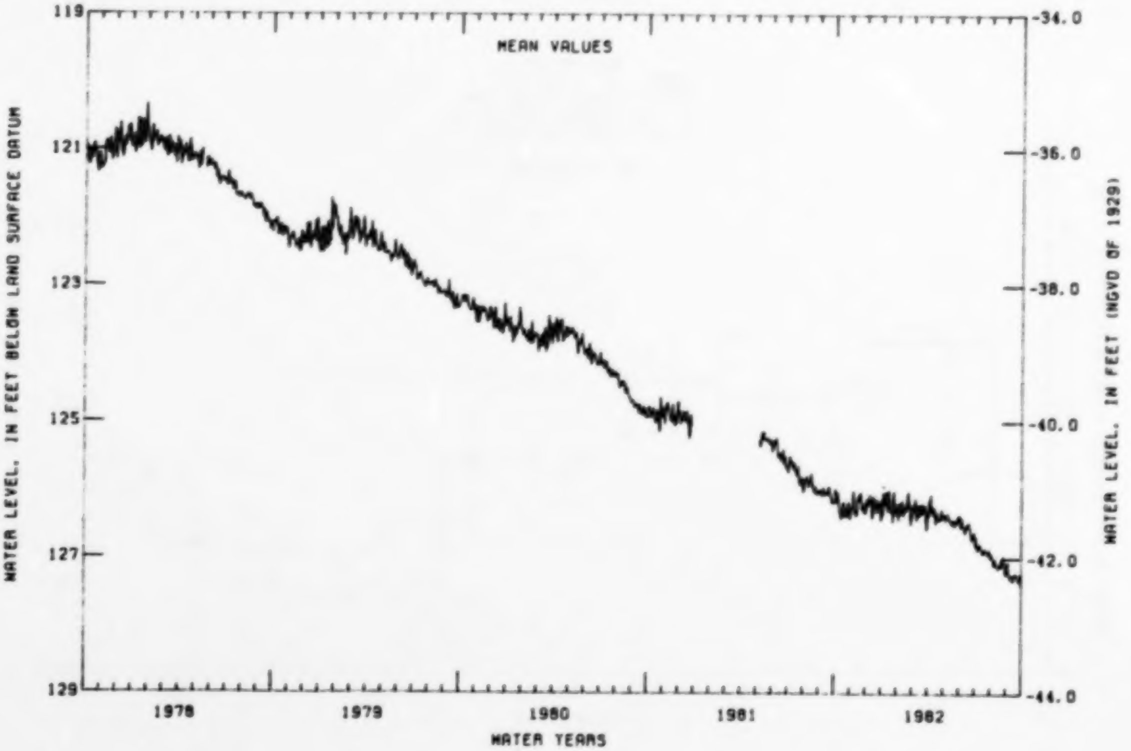
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 115.82 ft (35.302 m) below land-surface datum, Apr. 3, 1975; lowest, 127.46 ft (38.850 m) below land-surface datum, Sept. 30, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 125.90 ft (38.374 m) below land-surface datum, Jan. 14; lowest, 127.46 ft (38.850 m) below land-surface datum, Sept. 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	126.17	126.22	126.21	126.15	126.35	126.23	126.32	126.45	126.42	126.84	127.03	127.25
10	126.29	126.37	126.12	126.10	126.23	126.44	126.33	126.37	126.56	126.83	127.05	127.25
15	126.31	126.10	126.09	126.09	126.30	126.38	126.46	126.47	126.55	126.92	127.14	127.24
20	126.38	126.03	126.30	126.29	126.10	126.29	126.38	126.43	126.54	126.85	127.06	127.25
25	126.38	126.26	126.30	126.16	126.39	126.29	126.43	126.44	126.73	126.94	126.96	127.32
EOM	126.42	126.34	126.40	126.20	126.41	126.37	126.40	126.37	126.62	126.93	127.20	127.42
MEAN	126.25	126.22	126.23	126.21	126.28	126.32	126.34	126.43	126.56	126.87	127.08	127.26

WTR YR 1982 MEAN 126.50 HIGH 125.98 OCT 2 LOW 127.42 SEP 30



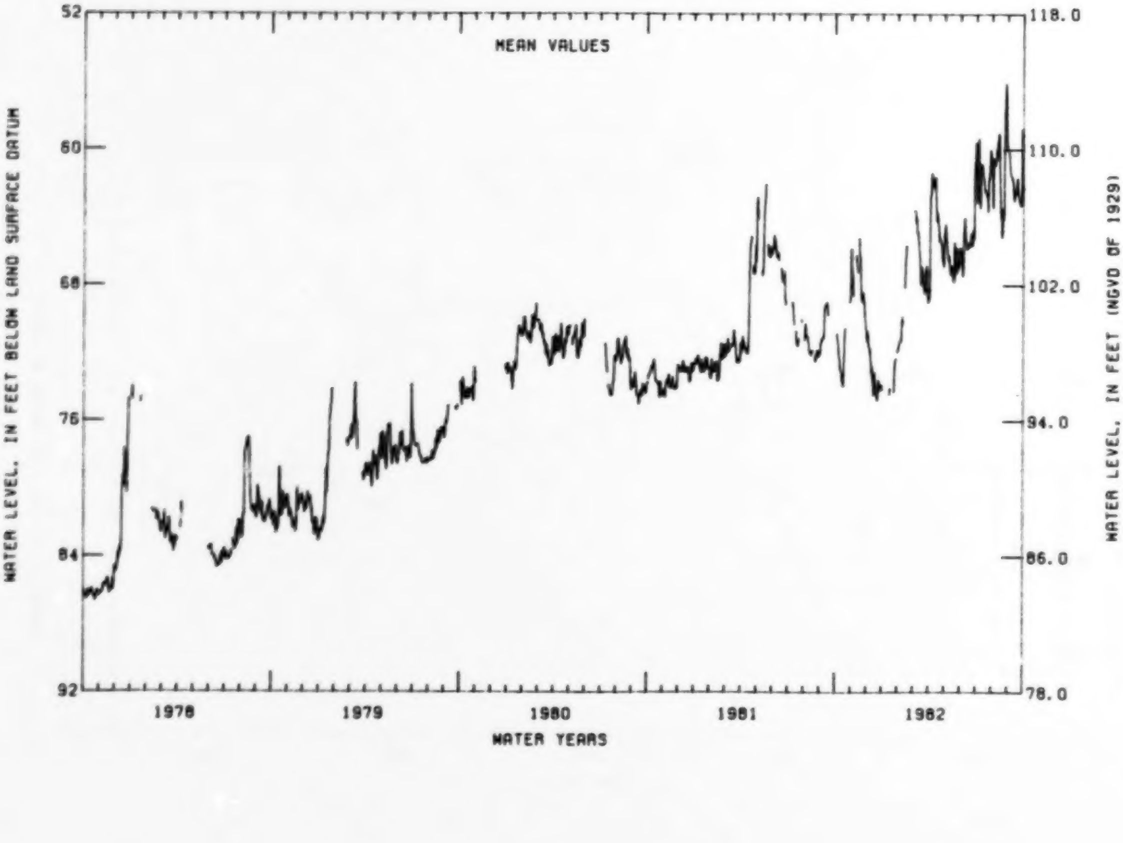
ESSEX COUNTY

404452074211601. Local I.D., Canoe Brook 30 Obs. NJ-WRD Well Number, 13-0013.
LOCATION.--Lat 40°44'52", long 74°21'16", Hydrologic Unit 02030103, about 0.3 mi (0.5 km) north of Canoe Brook pumping station, near Chatham.
Owner: Commonwealth Water Company.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 10 in (254 mm), depth about 130 ft (39.6 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 170.00 ft (51.816 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 6.60 ft (2.010 m) above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--September 1925 to May 1975, April 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.25 ft (2.210 m) below land-surface datum, Aug. 25, 1931; lowest, 86.70 ft (26.426 m) below land-surface datum, Oct. 23, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 54.83 ft (16.712 m) below land-surface datum, Aug. 28; lowest, 75.01 ft (22.863 m) below land-surfacce datum, Dec. 21.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	71.47	---	71.88	73.86	71.31	63.72	62.26	65.85	66.94	59.32	60.51	61.49
10	73.01	66.23	72.76	---	69.86	64.90	62.32	66.95	65.35	60.82	60.52	62.26
15	73.92	65.26	73.13	---	65.66	67.96	64.21	67.01	65.62	61.74	61.40	62.65
20	---	68.95	74.77	---	---	68.12	65.45	65.98	64.98	62.53	64.93	62.68
25	---	68.94	74.21	72.46	---	67.11	66 26	66.60	64.66	61.61	57.99	63.33
EOM	65.85	71.30	---	71.57	---	68.71	65.13	65.78	59.55	60.43	60.01	62.33
MEAN	71.54	68.12	73.38	---	---	66.81	64.13	66.44	64.89	61.66	60.91	61.96

WTR YR 1982 MEAN 66.12 HIGH 56.10 AUG 27 LOW 74.78 DEC 21



ESSEX COUNTY

404401074083401. Local I.D., Ballantine 8 Obs. NJ-WRD Well Number, 13-0017.

LOCATION.--Lat 40°44'01", long 74°08'34", Hydrologic Unit 02030103, near intersection of Raymond Boulevard and Richard Street, Newark.

Owner: Balco Company.

AQUIFER.--Brunswick Formation of Triassic age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 16 in (406 mm), cased to 95 ft (28.9 m), depth 875 ft (266.7 m), open hole.

INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, January 1949 to July 1975.

DATUM.--Land-surface datum is 12.79 ft (3.898 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 1.77 ft (0.539 m) above land-surface datum.

REMARKS.--Water level affected by nearby pumping prior to the early 1970's.

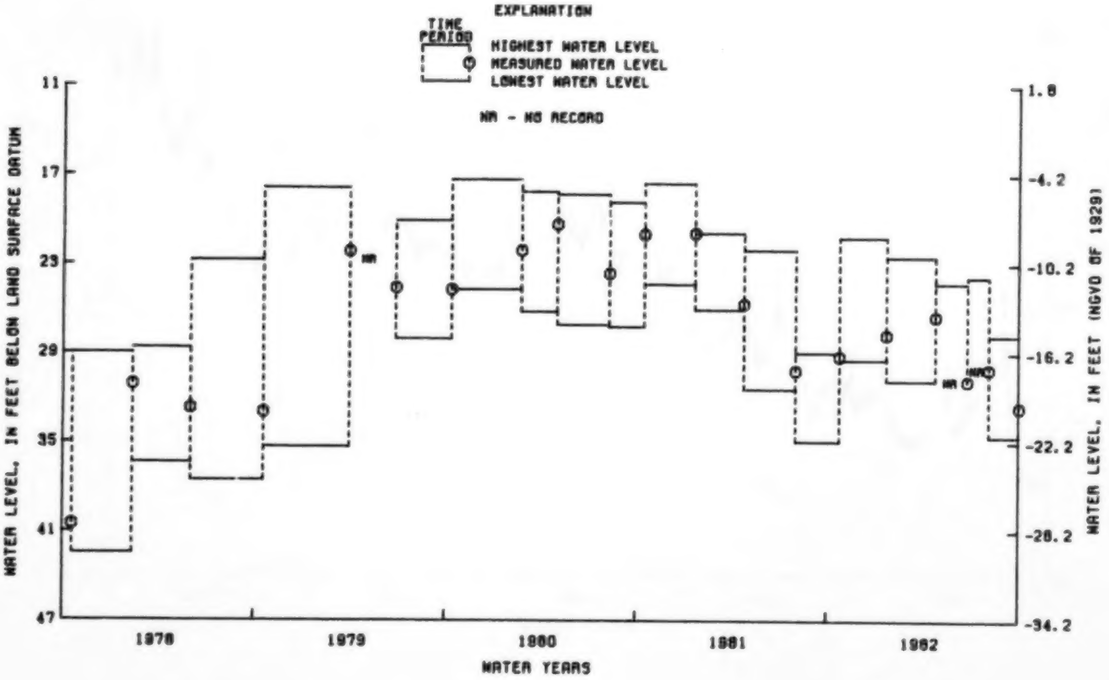
PERIOD OF RECORD.--January 1949 to July 1975, April 1977 to current year. Records for 1949 to 1980 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.30 ft (5.273 m) below land-surface datum, between Oct. 10, 1979 and Feb. 21, 1980; lowest, 216.59 ft (66.017 m) below land-surface datum, Sept. 20, 1957.

EXTREMES FOR CURRENT YEAR.--Highest water level, 21.16 ft (6.450 m) below land-surface datum, between Oct. 22 and Jan. 20; lowest, 34.60 ft (10.546 m) below land-surface datum, between Aug. 3 and Sept. 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 22, 1981 TO JAN. 20, 1982	21.16	29.42	JAN. 20, 1982	27.73
JAN. 20, 1982 TO APR. 23, 1982	22.47	30.83	APR. 23, 1982	26.49
APR. 23, 1982 TO JUNE 23, 1982	24.25	---	JUNE 23, 1982	30.83
JUNE 23, 1982 TO AUG. 3, 1982	23.84	---	AUG. 3, 1982	30.04
AUG. 3, 1982 TO SEPT. 30, 1982	27.79	34.60	SEPT. 30, 1982	32.61



MERCER COUNTY

402131074461201. Local I.D., Honey Branch 10 Obs. NJ-WRD Well Number, 21-0088.

LOCATION.--Lat 40°21'28", long 74°46'13", Hydrologic Unit 02030105, at Stony Brook-Millstone Watershed Association, near Pennington.

Owner: Stony Brook-Millstone Watershed Association.

AQUIFER.--Brunswick Formation of Triassic age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), cased to about 20 ft (6.1 m), depth 150 ft (45.7 m), open hole.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 179.50 ft (54.712 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Top edge of recorder shelf, 4.00 ft (1.220 m) above land-surface datum.

PERIOD OF RECORD.--June 1967 to August 1975, April 1977 to current year. Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.

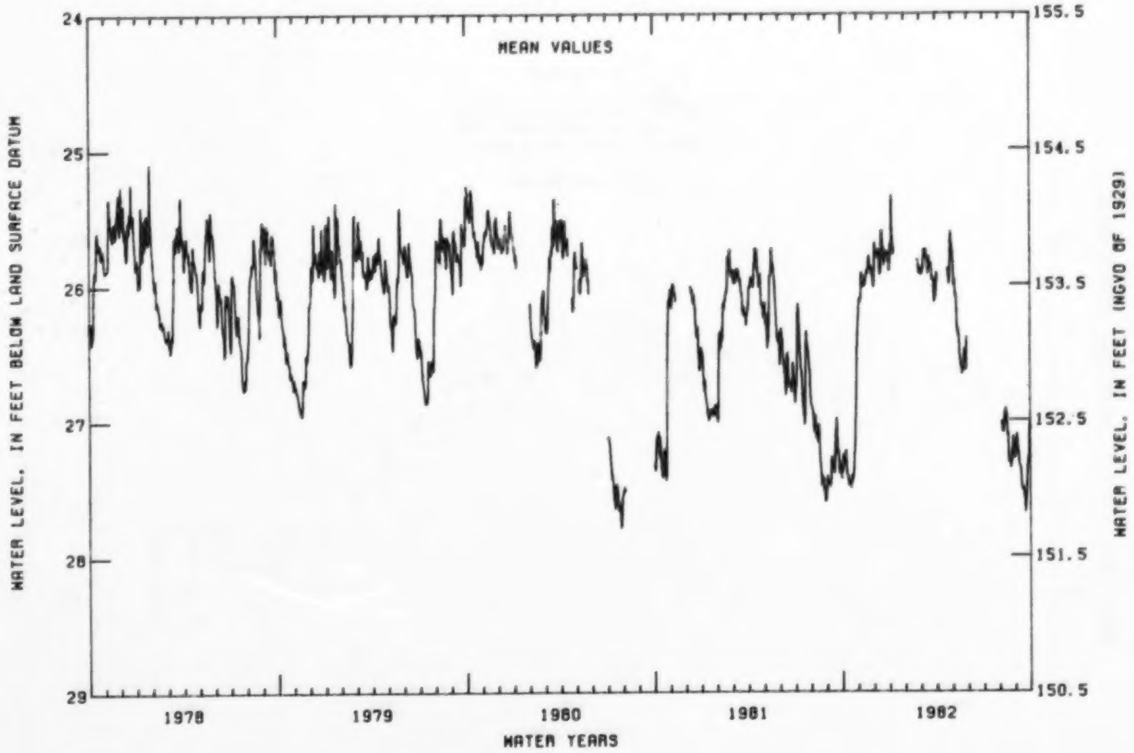
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.63 ft (7.507 m) below land-surface datum, July 21, 1967; lowest, 27.87 ft (8.495 m) below land-surface datum, July 27, 1980.

EXTREMES FOR CURRENT YEAR.--Highest water level, 25.06 ft (7.638 m) below land-surface datum, Jan. 4; lowest, 27.71 ft (8.446 m) below land-surface datum, Sept. 19.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.32	26.09	25.73	25.61	---	25.84	---	25.94			26.99	27.21
10	27.38	25.98	25.75	---	---	25.79	---	26.23			26.92	27.33
15	27.42	25.92	25.60	---	---	25.90	---	26.44			26.98	27.47
20	27.43	25.79	25.80	---	---	25.85	---	26.64			27.25	27.60
25	27.17	25.87	25.76	---	25.88	25.94	25.98	26.45			27.20	27.25
EOM	26.23	26.00	25.87	---	25.90	25.98	25.69	---			27.25	27.05
MEAN	27.19	25.94	25.77	---	---	25.88	---	26.32			27.12	27.32

WTR YR 1982 MEAN 26.42 HIGH 25.32 JAN 4 LOW 27.66 SEP 19



MIDDLESEX COUNTY

402015074275702. Local I.D., Forsgate 4 Obs.. NJ-WRD Well Number, 23-0229.
LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, on Hanover Lane at Rossmoor, Monroe Township.
Owner: Monroe Township Municipal Utilities Authority.
AQUIFER.--Farrington aquifer of the Raritan Formation of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 330 ft (100.6 m), screened 319 to 330 ft (97.2 to 100.6 m).
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, April 1965 to August 1967, August 1968 to August 1975.
DATUM.--Land-surface datum is 147.34 ft (44.909 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.50 ft (0.457 m) below land-surface datum.
PERIOD OF RECORD.--April 1965 to August 1967, August 1968 to August 1975, January 1977 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 80.09 ft (24.411 m) below land-surface datum, July 16, 1973; lowest, 99.36 ft (30.285 m) below land-surface datum, between June 8 and Sept. 29, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 94.75 ft (28.880 m) below land-surface datum, between Oct. 19 and Jan. 29; lowest, 99.36 ft (30.285 m) below land-surface datum, between June 8 and Sept. 29.

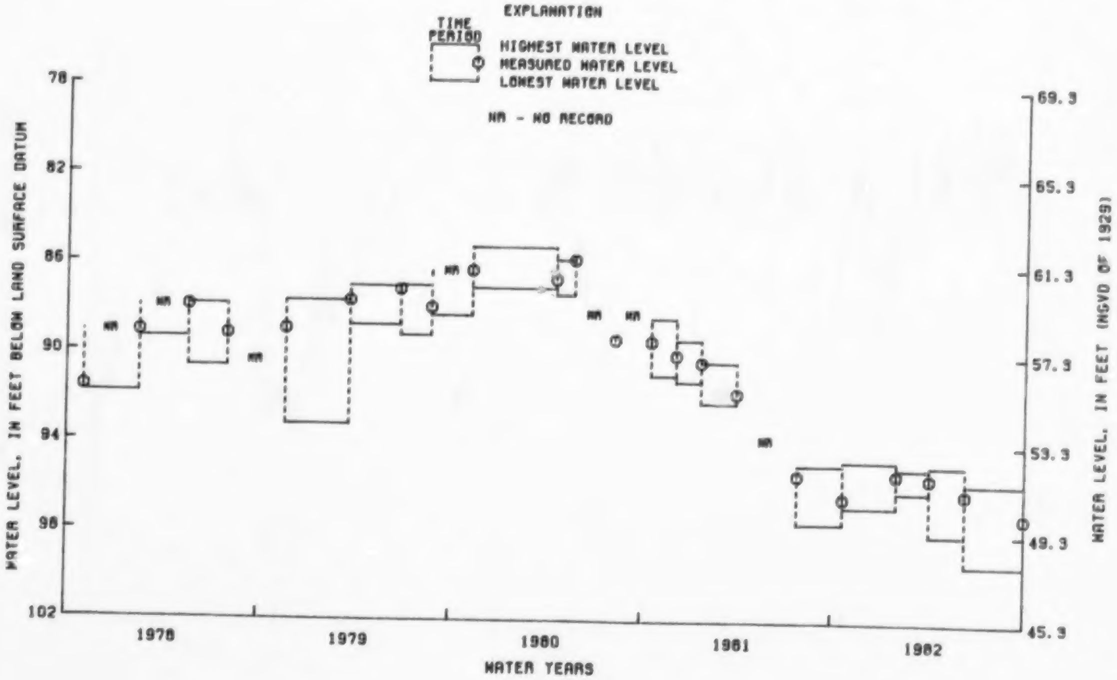
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 19, 1981 TO JAN. 29, 1982	94.75	96.81
JAN. 29, 1982 TO APR. 1, 1982	95.07	96.12
APR. 1, 1982 TO JUNE 8, 1982	94.92	98.04
JUNE 8, 1982 TO SEPT. 29, 1982	95.71	99.36

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 29, 1982	95.35
APR. 1, 1982	95.50
JUNE 8, 1982	96.17
SEPT. 29, 1982	97.20

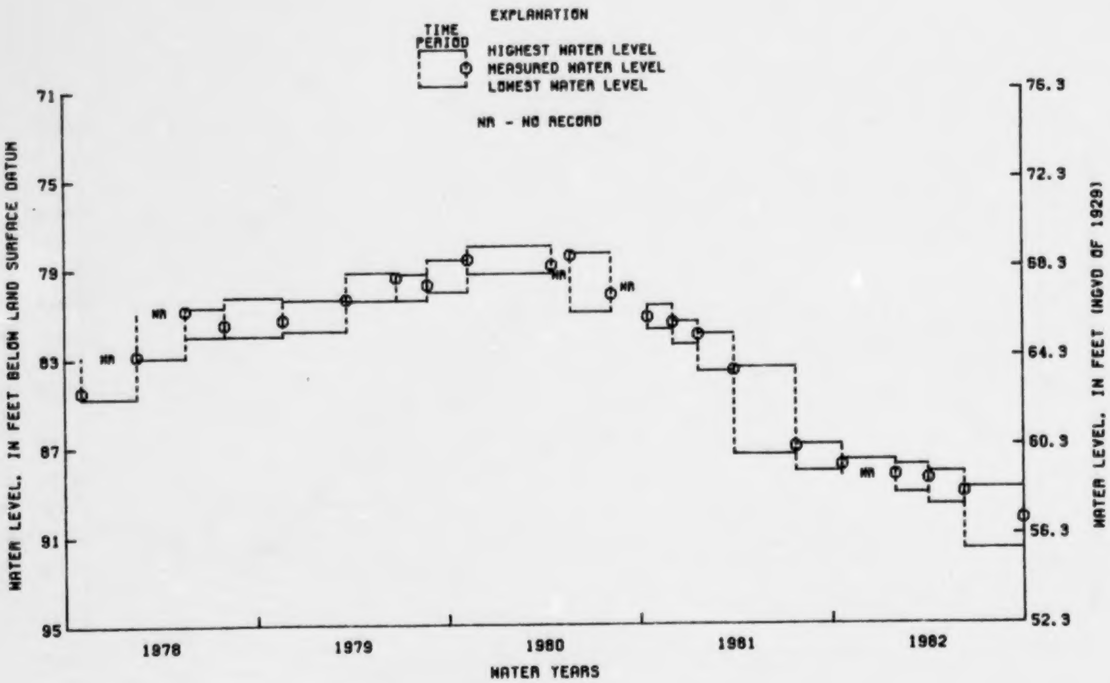


MIDDLESEX COUNTY

402015074275701. Local I.D., Forsgate 3 Obs. NJ-WRD Well Number, 23-0228.
LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, on Hanover Lane at Rossmoor, Monroe Township.
Owner: Monroe Township Municipal Utilities Authority.
AQUIFER.--Old Bridge aquifer of the Magothy Formation of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 138 ft (42.1 m), screened 128 to 138 ft (39.0 to 42.1 m).
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, October 1961 to August 1967, August 1968 to August 1975.
DATUM.--Land-surface datum is 147.34 ft (44.909 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.40 ft (0.427 m) below land-surface datum.
PERIOD OF RECORD.--October 1961 to August 1967, August 1968 to August 1975, January 1977 to current year. Records for 1961 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 70.32 ft (21.434 m) below land-surface datum, May 6, 1962; lowest, 91.66 ft (27.938 m) below land-surface datum, between June 8 and Sept. 29, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 87.64 ft (26.713 m) below land-surface datum, between Oct. 19 and Jan. 29; lowest, 91.66 ft (27.938 m) below land-surface datum, between June 8 and Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 19, 1981 TO JAN. 29, 1982	87.64	---	JAN. 29, 1982	88.34
JAN. 29, 1982 TO APR. 1, 1982	87.88	89.15	APR. 1, 1982	88.51
APR. 1, 1982 TO JUNE 8, 1982	88.20	89.67	JUNE 8, 1982	89.11
JUNE 8, 1982 TO SEPT. 29, 1982	88.91	91.66	SEPT. 29, 1982	90.32



MIDDLESEX COUNTY

402109074301301. Local I.D., Forsgate 1 Obs.. NJ-WRD Well Number, 23-0291.

LOCATION.--Lat 40°21'09", long 74°30'13", Hydrologic Unit 02030105, about 0.4 mi (0.6 km) west of Route 130 on Friendship Road, South Brunswick Township.

Owner: Monroe Township Municipal Utilities Authority.

AQUIFER.--Farrington aquifer of the Raritan Formation of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 203 ft (61.9 m), screened 192 to 203 ft (58.5 to 61.9 m).

INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, April 1965 to August 1975.

DATUM.--Land-surface datum is 106.79 ft (32.550 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.06 ft (0.628 m) above land-surface datum.

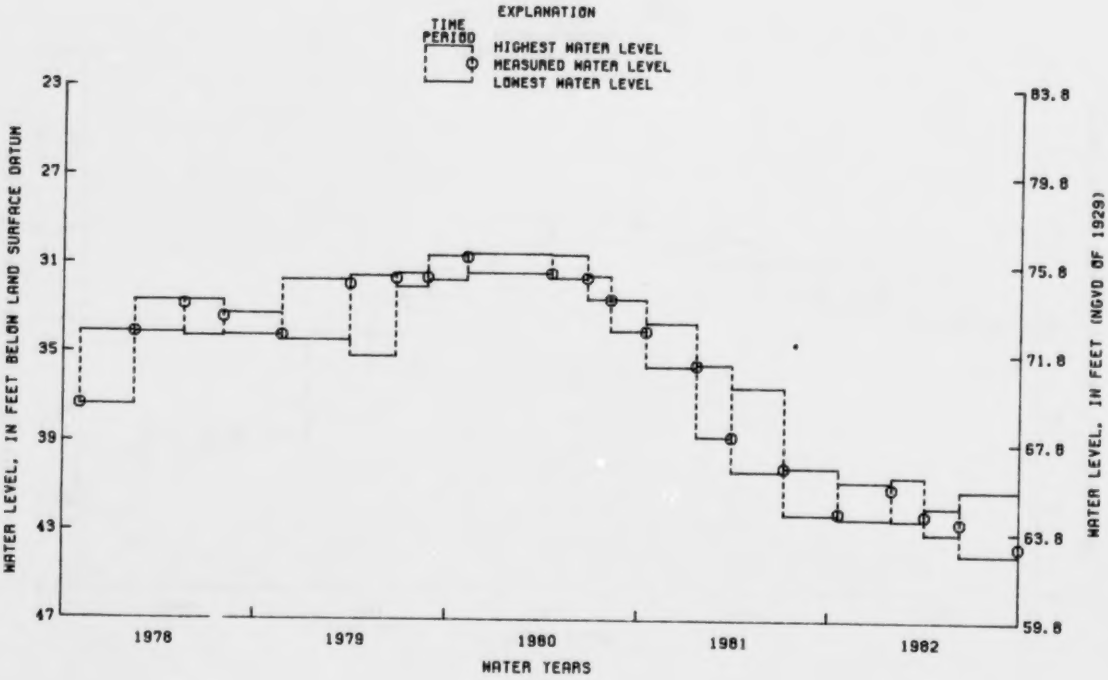
PERIOD OF RECORD.--April 1965 (revised) to August 1975, January 1977 to current year. The beginning of record was erroneously published as October 1961 in the 1979 and 1980 reports. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.70 ft (7.529 m) below land-surface datum, July 5, 1973; lowest, 43.99 ft (13.408 m) below land-surface datum, between June 8 and Sept. 29, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 40.49 ft (12.341 m) below land-surface datum, between Jan. 29 and Apr. 1; lowest, 43.99 ft (13.408 m) below land-surface datum, between June 8 and Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 19, 1981 TO JAN. 29, 1982	40.72	42.40	JAN. 29, 1982	41.02
JAN. 29, 1982 TO APR. 1, 1982	40.49	42.44	APR. 1, 1982	42.22
APR. 1, 1982 TO JUNE 8, 1982	41.85	43.04	JUNE 8, 1982	42.55
JUNE 8, 1982 TO SEPT. 29, 1982	41.10	43.99	SEPT. 29, 1982	43.61



MIDDLESEX COUNTY

402122074184601. Local I.D., Hulsart Obs. NJ-WRD Well Number, 23-0516.
LOCATION.--Lat 40°21'23", long 74°18'49", Hydrologic Unit 02030105, on the east side of Marlboro Road, 0.4 mi (0.6 km) southeast of Texas Road, Old Bridge Township.
Owner: Walter Novak.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 4.5 ft (1.37 m), depth 19 ft (5.8 m), lined with concrete blocks.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, June 1936 to December 1976.
DATUM.--Land-surface datum is 110.06 ft (33.546 m), revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top of angle iron at bottom of shelter doors, 1.80 ft (0.549 m) above land-surface datum.
PERIOD OF RECORD.--June 1936 to current year. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.40 ft (2.865 m) below land-surface datum, July 20, 1972; lowest, 16.78 ft (5.115 m) below land-surface datum, between July 6 and Oct. 6, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 12.35 ft (3.764 m) below land-surface datum, between Mar. 2 and June 8; lowest, 16.04 ft (4.889 m) below land-surface datum, between Oct. 6 and Dec. 8.

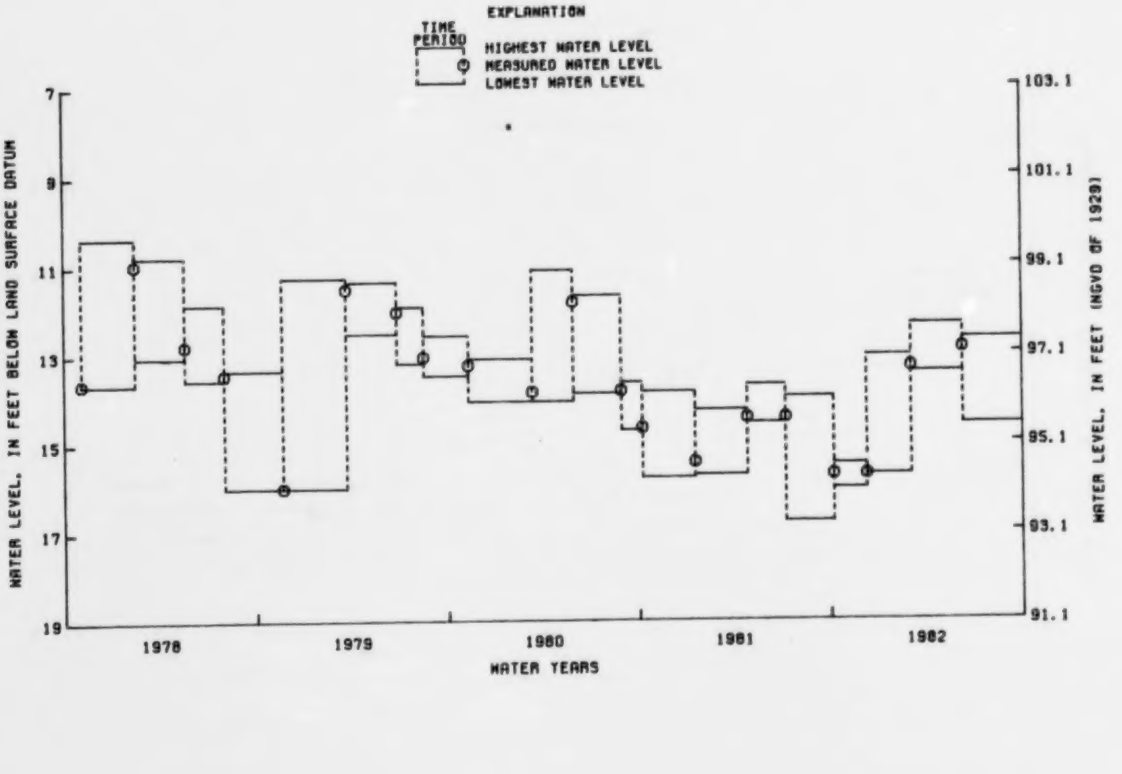
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 6, 1981 TO DEC. 8, 1981	15.48	16.04
DEC. 8, 1981 TO MAR. 2, 1982	13.05	15.73
MAR. 2, 1982 TO JUNE 8, 1982	12.35	13.43
JUNE 8, 1982 TO OCT. 1, 1982	12.67	14.60

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 8, 1981	15.73
MAR. 2, 1982	13.31
JUNE 8, 1982	12.90
OCT. 1, 1982	14.58



MIDDLESEX COUNTY

402450074181801. Local I.D., Browntown Obs. NJ-WRD Well Number, 23-0182.
LOCATION.--Lat 40°24'49", long 74°18'19", Hydrologic Unit 02030105, on the east side of Route 9, about 1.0 mi (1.6 km) north of Browntown.
Owner: Old Bridge Municipal Utilities Authority.
AQUIFER.--Old Bridge aquifer of the Magothy Formation of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 71 ft (21.6 m), perforated pipe 66 to 71 ft (20.1 to 21.6 m).
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, November 1932 to August 1975.
DATUM.--Land-surface datum is 30.58 ft (9.321 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.17 ft (0.966 m) above land-surface datum.
PERIOD OF RECORD.--November 1932 to August 1975, January 1977 to current year. Records for 1932 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.44 ft (0.744 m) below land-surface datum, Apr. 9-10, 1939; lowest, 16.48 ft (5.023 m) below land-surface datum, between Oct. 6 and Jan. 28, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 14.65 ft (4.465 m) below land-surface datum, between Mar. 31 and June 22; lowest, 16.48 ft (5.023 m) below land-surface datum, between Oct. 6 and Jan. 28.

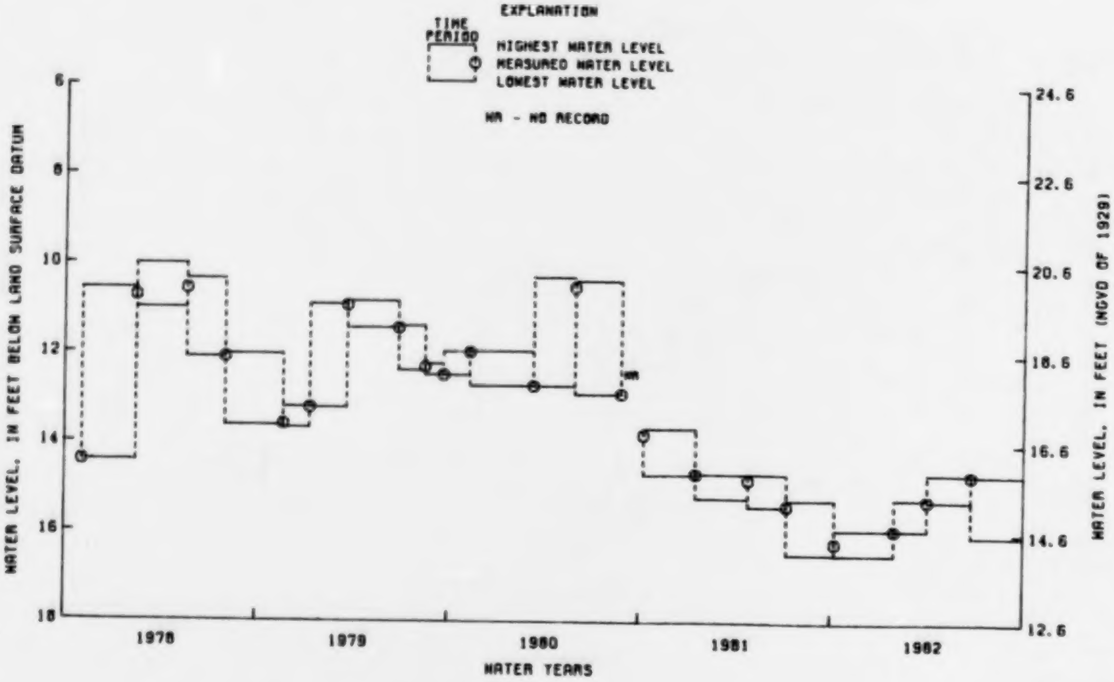
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 6, 1981 TO JAN. 28, 1982	15.91	16.48
JAN. 28, 1982 TO MAR. 31, 1982	15.22	15.92
MAR. 31, 1982 TO JUNE 22, 1982	14.65	15.26
JUNE 22, 1982 TO OCT. 1, 1982	14.67	16.05

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 28, 1982	15.92
MAR. 31, 1982	15.25
JUNE 22, 1982	14.68
OCT. 1, 1982	16.05

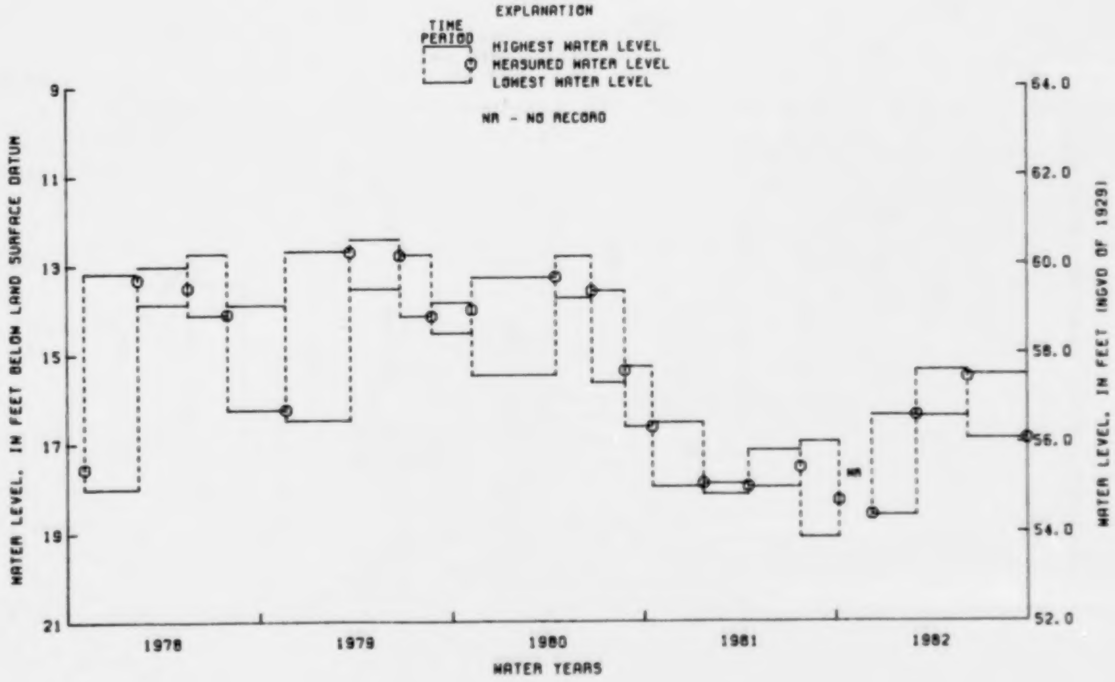


MIDDLESEX COUNTY

402553074271701. Local I.D., Robert Fischer Obs. NJ-WRD Well Number, 23-0070.
LOCATION.--Lat 40°25'55", long 74°27'19", Hydrologic Unit 02030105, about 1,800 ft (548.6 m) southeast of Weber School on Hardenburg Lane, East Brunswick Township.
Owner: Robert D. Fischer.
AQUIFER.--Farrington aquifer of the Raritan Formation of Cretaceous age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 4.5 ft (1.37 m), depth 21 ft (6.4 m), cased to 17 ft (5.2 m).
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, June 1936 to April 1975.
DATUM.--Land-surface datum is 73.00 ft (22.250 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top of angle iron at bottom of shelter doors, 1.70 ft (0.518 m) above land-surface datum.
REMARKS.--Well deepened October 29, 1965 from 17 to 21 ft (5.2 to 6.4 m).
PERIOD OF RECORD.--June 1936 to April 1975, January 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.88 ft (2.707 m) below land-surface datum, Apr. 26-27, 1939; lowest, 19.11 ft (5.825 m) below land-surface datum, between July 24 and Oct. 6, 1981; well was dry many times, 1963-1965 before deepening.
EXTREMES FOR CURRENT YEAR.--Highest water level, 15.37 ft (4.685 m) below land-surface datum, between Mar. 2 and June 8; lowest, 18.62 ft (5.675 m) below land-surface datum, between Dec. 8 and Mar. 2.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 6, 1981 TO DEC. 8, 1981	---	---	DEC. 8, 1981	18.60
DEC. 8, 1981 TO MAR. 2, 1982	16.38	18.62	MAR. 2, 1982	16.38
MAR. 2, 1982 TO JUNE 8, 1982	15.37	16.41	JUNE 8, 1982	15.53
JUNE 8, 1982 TO SEPT. 29, 1982	15.47	16.91	SEPT. 29, 1982	16.91



MIDDLESEX COUNTY

402633074220001. Local I.D., South River 2 Obs. NJ-WRD Well Number, 23-0439.

LOCATION.--Lat 40°26'33", long 74°22'00", Hydrologic Unit 02030105, at the corner of Whitehead Avenue and Anne Street, South River.

Owner: South River Utilities.

AQUIFER.--Farrington aquifer of the Raritan Formation of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 126 ft (38.4 m), screened 121 to 126 ft (36.9 to 38.4 m).

INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, January 1968 to August 1975.

DATUM.--Land-surface datum is 20.69 ft (6.306 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.55 ft (0.777 m) above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

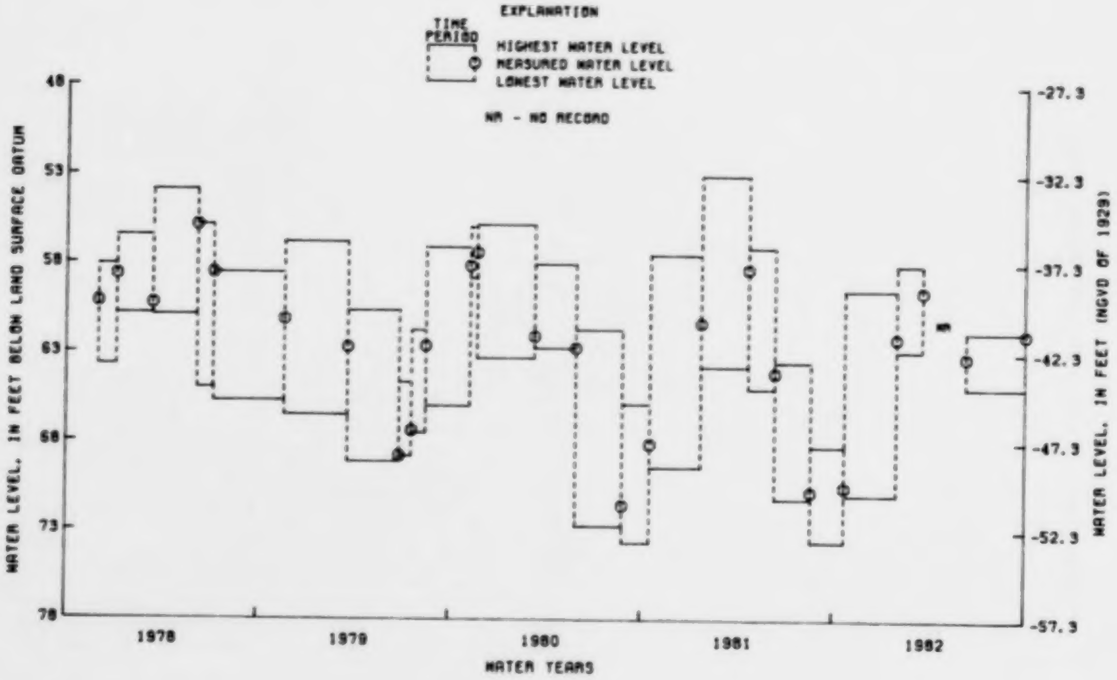
PERIOD OF RECORD.--January 1968 to August 1975, January 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.37 ft (12.000 m) below land-surface datum, Jan. 30, 1968; lowest, 73.64 ft (22.445 m) below land-surface datum, between Aug. 25 and Oct. 16, 1980.

EXTREMES FOR CURRENT YEAR.--Highest water level, 58.02 ft (17.684 m) below land-surface datum, between Jan. 28 and Mar. 17; lowest, 70.95 ft (21.626 m) below land-surface datum, between Oct. 21 and Jan. 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 21, 1981 TO JAN. 28, 1982	59.43	70.95	JAN. 28, 1982	62.12
JAN. 28, 1982 TO MAR. 17, 1982	58.02	62.85	MAR. 17, 1982	59.50
MAR. 17, 1982 TO JUNE 8, 1982	---	---	JUNE 8, 1982	63.17
JUNE 8, 1982 TO SEPT. 29, 1982	61.76	64.92	SEPT. 29, 1982	61.88

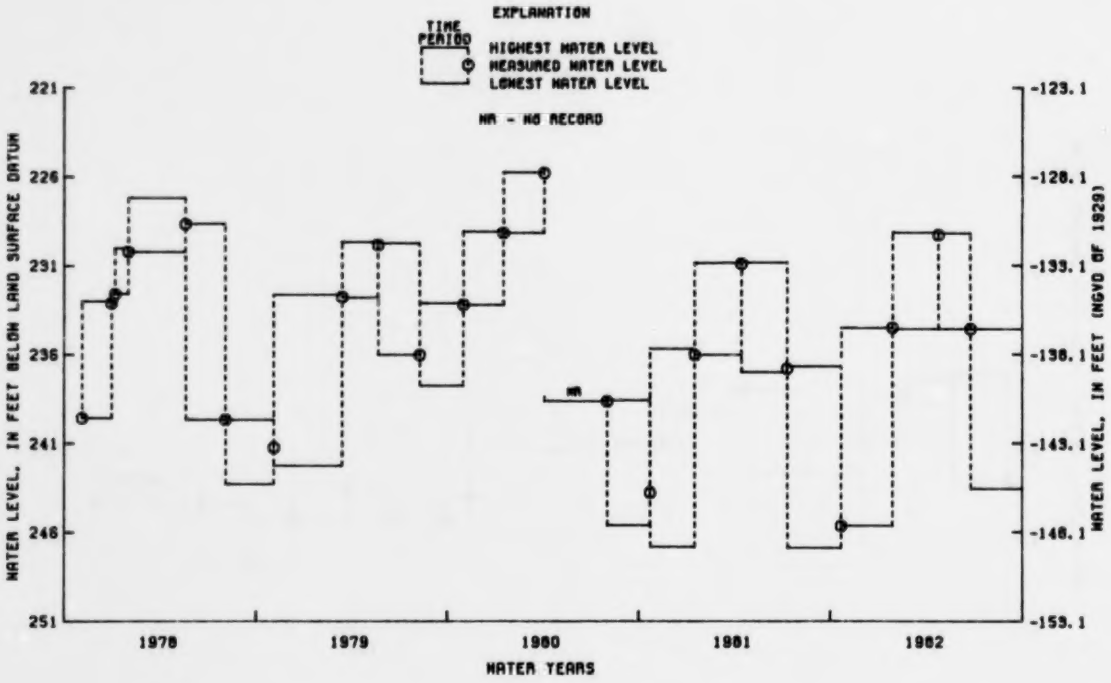


MONMOUTH COUNTY

400832074082101. Local I.D., Allaire State Park C Obs. NJ-WRD Well Number, 25-0429.
LOCATION.--Lat 40°08'34", long 74°08'34", Hydrologic Unit 02040301, about 1.3 mi (2.1 km) southeast of Lower Squankum, in Allaire State Park, Wall Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 715 ft (217.9 m), screened 623 to 633 ft (189.9 tO 192.9 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, January 1964 to July 1975.
DATUM.--Land-surface datum is 97.93 ft (29.849 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.64 ft (0.500 m) above land-surface datum.
PERIOD OF RECORD.--January 1964 to July 1975, February 1977 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 141.05 ft (42.992 m) below land-surface datum, Apr. 8, 1964; lowest, 246.87 ft (75.246 m) below land-surface datum, between July 9 and Oct. 20, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 229.12 ft (69.836 m) below land-surface datum, between Jan. 26 and Apr. 22; lowest, 245.63 ft (74.868 m) below land-surface datum, between Oct. 20 and Jan. 26.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 20, 1981 TO JAN. 26, 1982	234.47	245.63	JAN. 26, 1982	234.47
JAN. 26, 1982 TO APR. 22, 1982	229.12	234.55	APR. 22, 1982	229.27
APR. 22, 1982 TO JUNE 22, 1982	229.16	234.56	JUNE 22, 1982	234.56
JUNE 22, 1982 TO OCT. 1, 1982	234.56	243.54	OCT. 1, 1982	243.35

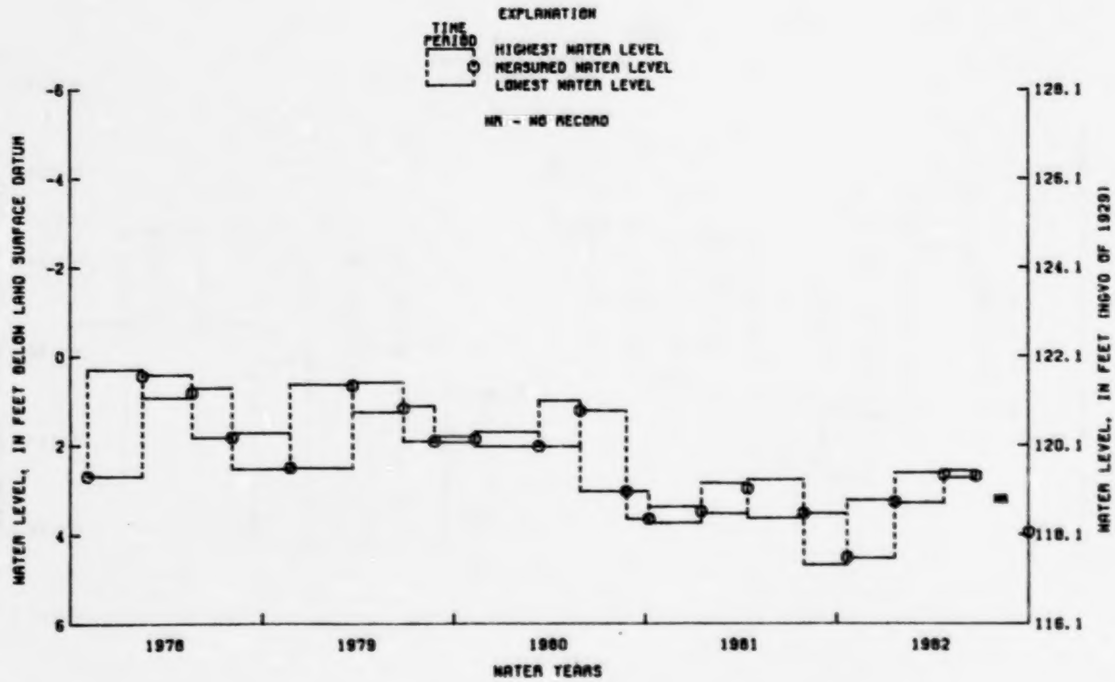


MONMOUTH COUNTY

401518074223001. Local I.D., Manalapan 1 Obs. NJ-WRD Well Number, 25-0216.
LOCATION.--Lat 40°15'18", long 74°22'30", Hydrologic Unit 02030105, on the north side of Route 33, about 1,600 ft (487.7 m) west of Woodward Road, Manalapan Township.
Owner: Manalapan Township Water Department.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 185 ft (56.4 m), screened 113 to 136 ft (34.4 to 41.5 m) and 158 to 174 ft (48.2 to 53.0 m), revised.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, April 1971 to July 1975.
DATUM.--Land-surface datum is 122.11 ft (37.219 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.28 ft (0.695 m) above land-surface datum.
PERIOD OF RECORD.--April 1971 to July 1975, January 1977 to current year. Records for 1971 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.00 ft (0.000 m) below land-surface datum, May 19-20, 1973; lowest, 4.68 ft (1.426 m) below land-surface datum, between July 29 and Oct. 20, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 2.56 ft (0.780 m) below land-surface datum, between Apr. 22 and June 22; lowest, 4.53 ft (1.381 m) below land-surface datum, between Oct. 20 and Jan. 19.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 20, 1981 TO JAN. 19, 1982	3.22	4.53	JAN. 19, 1982	3.27
JAN. 19, 1982 TO APR. 22, 1982	2.61	3.29	APR. 22, 1982	2.66
APR. 22, 1982 TO JUNE 22, 1982	2.56	2.72	JUNE 22, 1982	2.68
JUNE 22, 1982 TO SEPT. 30, 1982	---	---	SEPT. 30, 1982	3.95

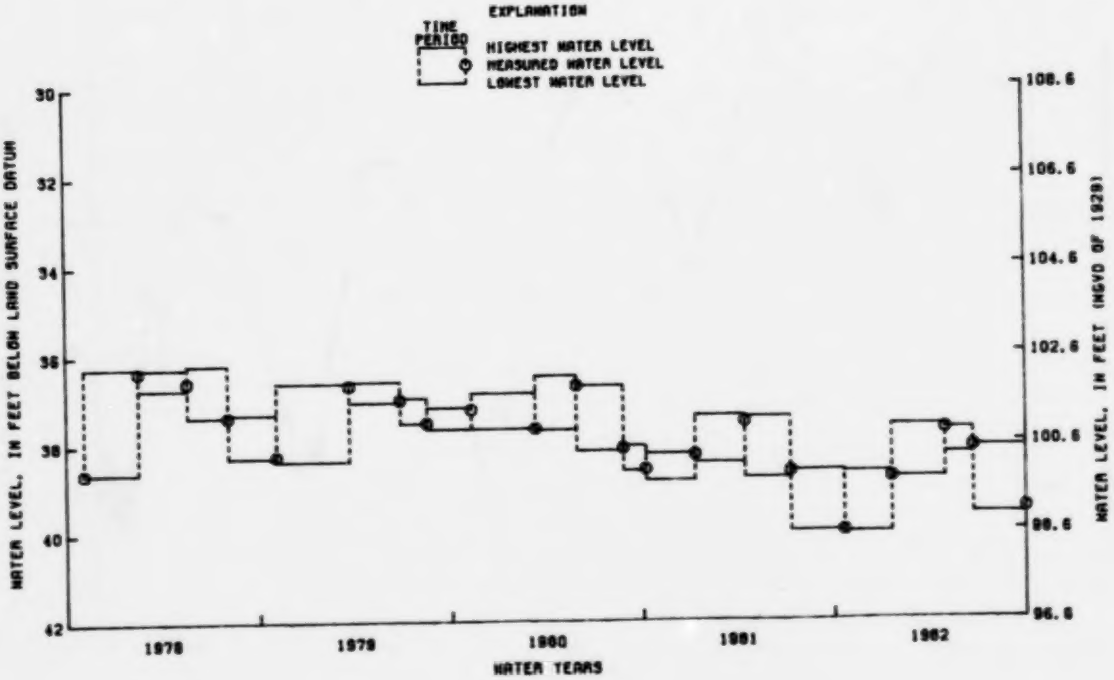


MONMOUTH COUNTY

401906074151401. Local I.D., Village 215 Obs. NJ-WRD Well Number, 25-0250.
LOCATION.--Lat 40°19'18", long 74°15'29", Hydrologic Unit 02030105, near intersection of River Drive and Newport Road, about 0.6 mi (1.0 km) northwest of Route 79, in Marlboro.
Owner: Gordons Corner Water Company.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 215 ft (65.5 m), screened 185 to 215 ft (56.4 to 65.5 m).
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, April 1971 to July 1975.
DATUM.--Land-surface datum is 138.62 ft (42.251 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.58 ft (0.786 m) above land-surface datum.
PERIOD OF RECORD.--April 1971 to July 1975, January 1977 to current year. Records for 1971 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.30 ft (10.759 m) below land-surface datum, Jan. 9-10, 1972; lowest, 40.04 ft (12.204 m) below land-surface datum, between Oct. 20 and Jan. 19, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 37.63 ft (11.470 m) below land-surface datum, between Jan. 19 and Apr. 30; lowest, 40.04 ft (12.204 m) below land-surface datum, between Oct. 20 and Jan. 19.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 20, 1981 TO JAN. 19, 1982	38.68	40.04	JAN. 19, 1982	38.81
JAN. 19, 1982 TO APR. 30, 1982	37.63	38.81	APR. 30, 1982	37.72
APR. 30, 1982 TO JUNE 22, 1982	37.71	38.27	JUNE 22, 1982	38.12
JUNE 22, 1982 TO SEPT. 30, 1982	38.11	39.62	SEPT. 30, 1982	39.50



MONMOUTH COUNTY

402208074145201. Local I.D., Marlboro 1 Obs. NJ-WRD Well Number, 25-0272.

LOCATION.--Lat 40°22'08", long 74°14'52" (revised), Hydrologic Unit 02030104, on the west side of New Jersey Route 79, 0.9 mi (1.4 km) south of Morganville.

Owner: Marlboro Township Municipal Utilities Authority.

AQUIFER.--Farrington aquifer of the Raritan Formation of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 680 ft (207 m), screened 670 to 680 ft (204 to 207 m).

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 116.93 ft (35.640 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Top edge of recorder shelf, 2.50 ft (0.760 m) above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.--January 1973 to July 1975, March 1977 to current year. Records for 1973 to 1977 are unpublished and are available in files of New Jersey District Office.

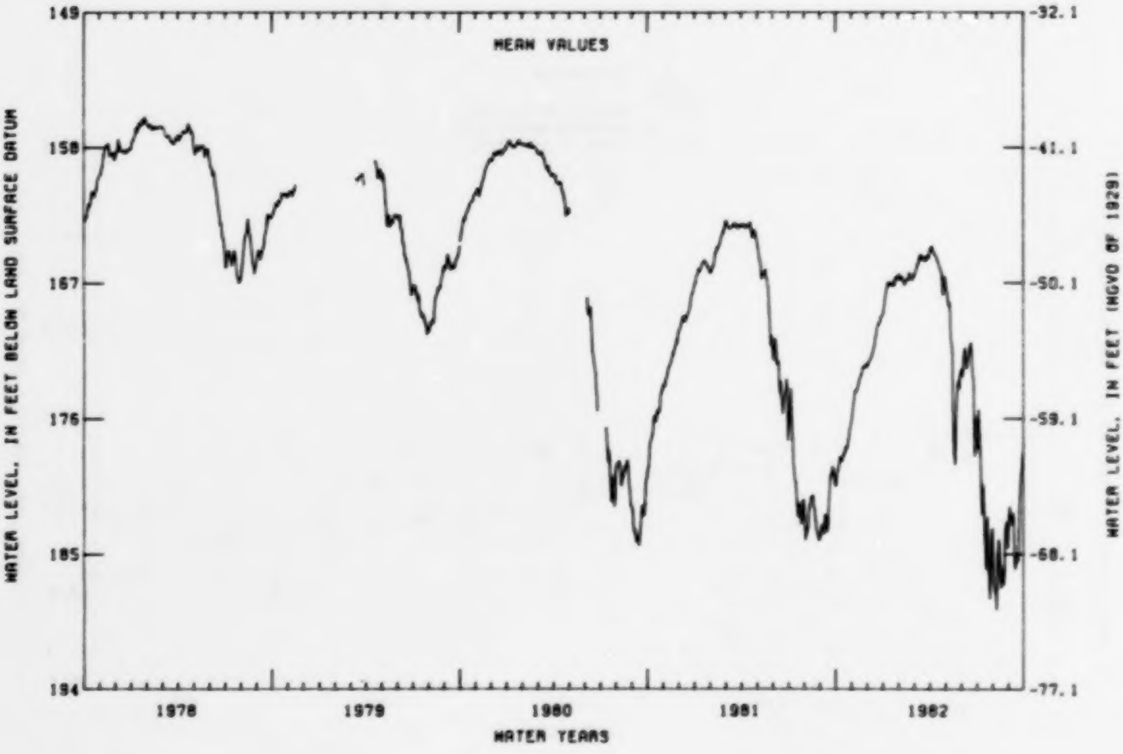
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 144.06 ft (43.910 m) below land-surface datum, Apr. 4, 1973; lowest, 189.28 ft (57.693 m) below land-surface datum, Aug. 8, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 164.28 ft (50.073 m) below land-surface datum, Apr. 4; lowest, 189.28 ft (57.693 m) below land-surface datum, Aug. 8.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	179.44	174.58	172.11	167.85	166.71	166.17	164.83	167.91	171.99	176.39	187.39	182.33
10	178.64	174.22	171.68	166.93	167.00	165.61	165.04	168.99	172.08	181.78	184.98	182.54
15	178.46	173.35	170.86	167.11	166.71	165.49	165.48	174.76	171.77	182.15	186.31	185.49
20	177.95	172.87	169.89	167.03	166.35	165.36	166.02	179.04	171.08	185.33	186.67	184.06
25	177.37	172.48	169.58	166.78	166.75	165.43	167.26	173.65	174.94	187.09	183.27	179.57
EOM	176.08	172.63	169.03	166.39	166.61	164.91	166.57	172.71	175.94	183.25	183.48	177.71
MEAN	178.21	173.53	170.71	167.19	166.72	165.55	165.70	172.36	173.08	182.19	185.64	182.41

WTR YR 1982 MEAN 173.66 HIGH 164.53 APR 4 LOW 188.69 AUG 8



MONMOUTH COUNTY

402536073590501. Local I.D., Sandy Hook SP 1 Obs. NJ-WRD Well Number, 25-0316.

LOCATION.--Lat 40°25'36", long 73°59'05", Hydrologic Unit 02030104, about 1.9 mi (3.1 km) north of the main entrance of Sandy Hook National Park, Middletown Township.

Owner: National Park Service.

AQUIFER.--Old Bridge aquifer of the Magothy Formation of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 397 ft (121.0 m), screened 371 to 397 ft (113.1 to 121.0 m).

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, May 1965 to August 1975.

DATUM.--Land-surface datum is 10.91 ft (3.325 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 1.20 ft (0.366 m) above land-surface datum.

REMARKS.--Water level affected by tidal fluctuation.

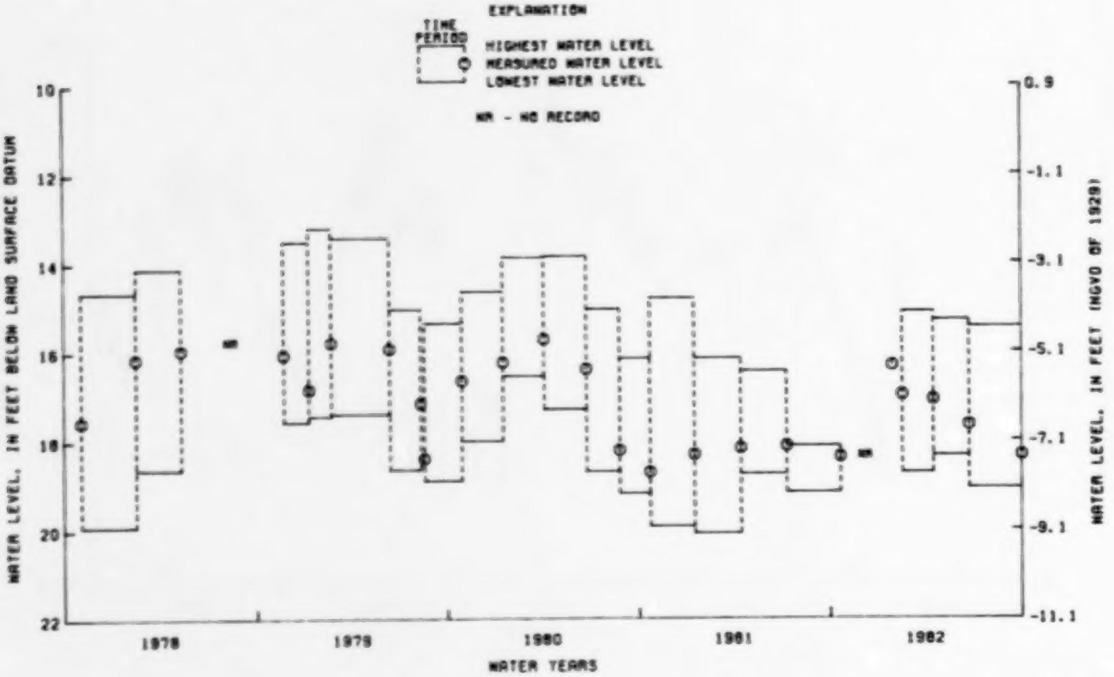
PERIOD OF RECORD.--May 1965 to August 1975, February 1977 to May 1978, November 1978 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.99 ft (2.740 m) below land-surface datum, Jan. 23, 1966; lowest, 20.12 ft (6.133 m) below land-surface datum, between Sept. 7 and Nov. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 15.10 ft (4.602 m) below land-surface datum, between Feb. 16 and Apr. 15; lowest, 19.06 ft (5.809 m) below land-surface datum, between June 22 and Sept. 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 20, 1981 TO JAN. 28, 1982	---	---	JAN. 28, 1982	16.31
JAN. 28, 1982 TO FEB. 16, 1982	---	---	FEB. 16, 1982	16.97
FEB. 16, 1982 TO APR. 15, 1982	15.10	18.72	APR. 15, 1982	17.08
APR. 15, 1982 TO JUNE 22, 1982	15.29	18.34	JUNE 22, 1982	17.65
JUNE 22, 1982 TO SEPT. 30, 1982	15.44	19.06	SEPT. 30, 1982	18.33



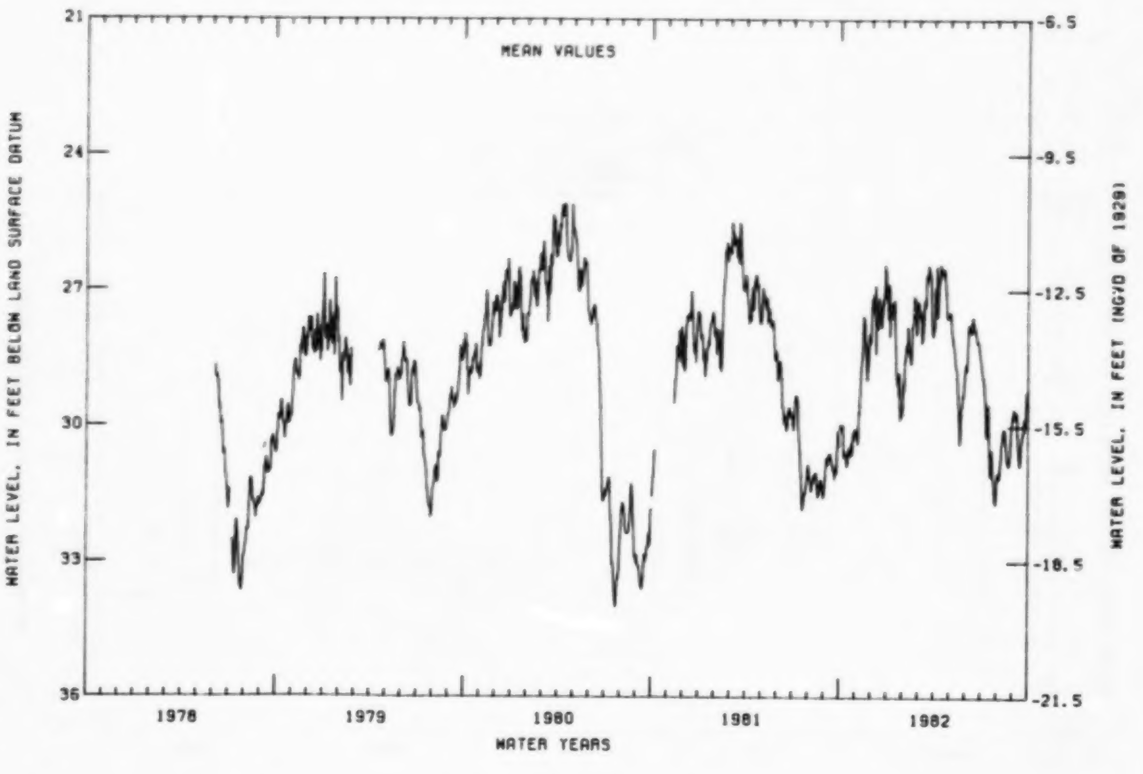
MONMOUTH COUNTY

402626074114204. Local I.D., Keyport Borough WD 4 Obs. NJ-WRD Well Number, 25-0206.
LOCATION.--Lat 40°26'25" (revised), long 74°11'45" (revised), Hydrologic Unit 02030104, at the unused Myrtle Avenue Water Plant, Keyport.
Owner: Keyport Borough Water Department.
AQUIFER.--Old Bridge aquifer of the Magothy Formation of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 249 ft (75.9 m), screened 225 to 249 ft (68.6 to 75.9 m), revised.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 14.47 ft (4.410 m), revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.30 ft (0.700 m) above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.32 ft (7.108 m) below land-surface datum, Apr. 14, 1980; lowest, 34.88 ft (10.631 m) below land-surface datum, July 22, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 25.02 ft (7.626 m) below land-surface datum, Apr. 6; lowest, 32.61 ft (9.940 m) below land-surface datum, July 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.03	30.02	27.08	28.01	28.34	27.55	27.36	27.86	28.24	28.94	31.16	29.78
10	30.59	28.85	27.24	27.27	28.07	28.02	26.85	28.29	27.79	30.00	30.39	30.41
15	30.77	27.55	27.15	27.89	28.61	27.36	26.56	28.80	27.58	29.68	30.04	30.67
20	30.62	28.11	27.81	28.92	27.66	26.61	26.51	30.12	27.91	30.77	30.77	30.11
25	30.37	28.46	27.18	29.85	27.58	26.72	27.36	29.47	28.11	31.29	30.69	29.81
EOM	30.13	27.81	27.19	29.06	27.44	27.76	27.60	28.73	28.52	31.21	29.75	---
MEAN	30.40	28.75	27.33	28.34	28.07	27.30	27.02	28.83	28.06	30.25	30.52	30.05

WTR YR 1982 MEAN 28.74 HIGH 26.42 DEC 27 AND OTHERS LOW 31.72 JUL 29



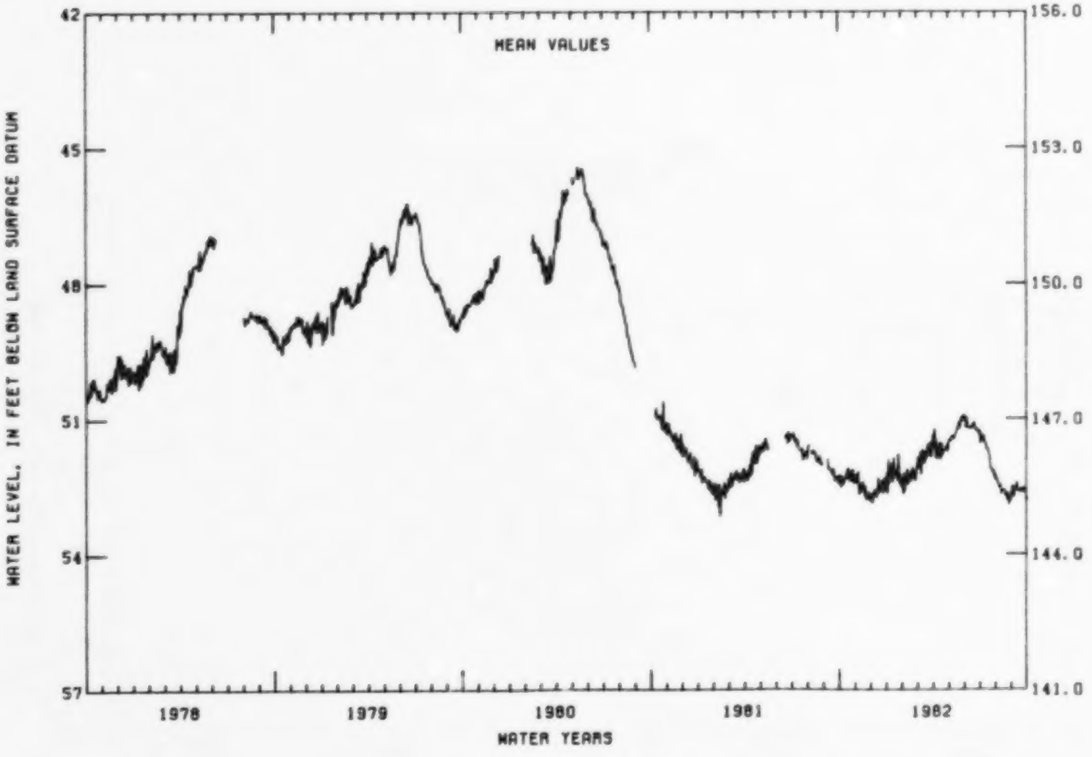
MORRIS COUNTY

404639074230001. Local I.D., Briarwood School Obs. NJ-WRD Well Number, 27-0012.
LOCATION.--Lat 40°46'39", long 74°23'00", Hydrologic Unit 02030103, at Briarwood School near Florham Park.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 6 in (152 mm), depth 110 ft (33.5 m), screened 100 to 110 ft (30.5 to 33.5 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Altitude of land-surface datum is 198 ft (60.4 m), by altimeter.
Measuring point: Top edge of recorder shelf, 3.00 ft (0.910 m) above land-surface datum.
PERIOD OF RECORD.--March 1967 to May 1975, April 1977 to current year. Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.17 ft (10.415 m) below land-surface datum, June 3, 1968; lowest, 53.34 ft (16.258 m) below land-surface datum, Feb. 12, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 50.87 ft (15.505 m) below land-surface datum, Apr. 3 and June 1-2; lowest, 52.96 ft (16.142 m) below land-surface datum, Feb. 1.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.44	52.33	52.72	52.44	52.52	51.89	51.85	51.47	50.96	51.50	52.43	52.64
10	52.38	52.54	52.61	52.24	52.45	51.96	51.85	51.41	51.19	51.54	52.57	52.40
15	52.14	52.39	52.31	52.23	52.21	51.98	51.88	51.30	51.17	51.66	52.60	52.56
20	52.37	52.49	52.57	52.11	52.12	51.72	51.67	51.06	51.19	51.98	52.63	52.56
25	52.29	52.75	52.49	52.40	52.37	51.59	51.67	50.96	51.23	52.15	52.64	52.58
EOM	52.32	52.82	52.38	52.31	52.05	51.33	51.53	50.98	51.37	52.24	52.58	52.75
MEAN	52.30	52.56	52.57	52.24	52.30	51.79	51.66	51.24	51.18	51.79	52.60	52.58

WTR YR 1982 MEAN 52.07 HIGH 50.91 MAY 29 LOW 52.89 AUG 26



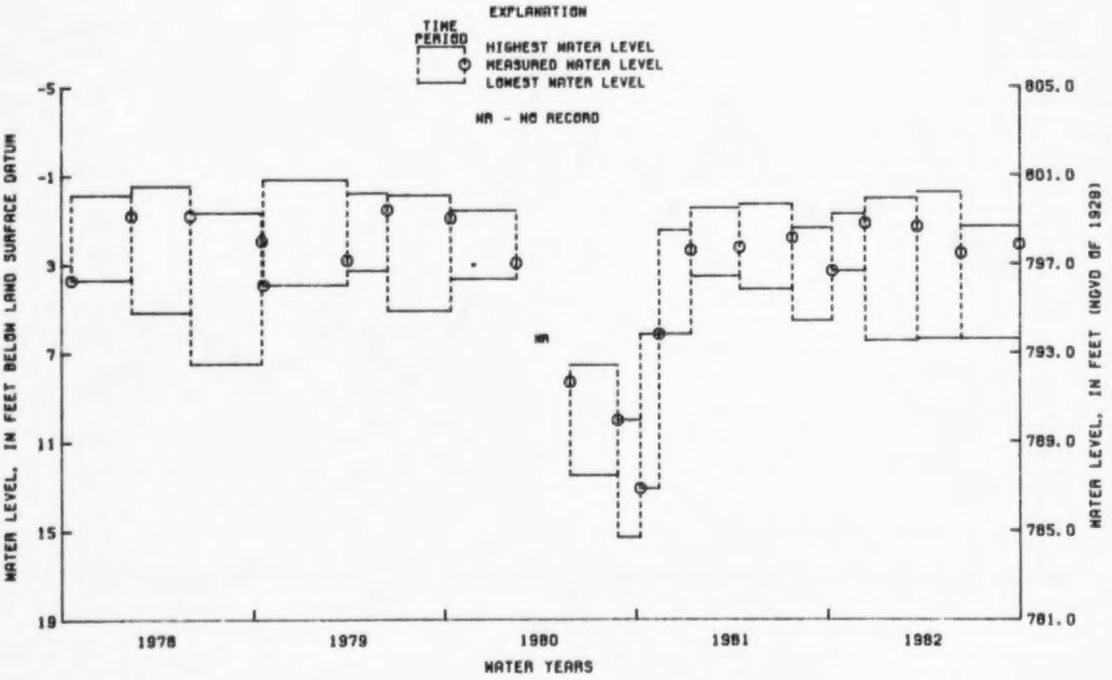
MORRIS COUNTY

404921074335601. Local I.D., Mount Freedom 2 Obs. NJ-WRD Well Number, 27-0023.
LOCATION.--Lat 40°49'21", long 74°33'56", Hydrologic Unit 02030103, 440 ft (134.1 m) north of the intersection of Phyllis Place and Leonard Lane, Randolph Township.
Owner: Randolph Township Water Department.
AQUIFER.--Byram gneiss of Precambrian age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 8 in (203 mm), cased to 11 ft (3.4 m), depth 218 ft (66.4 m), open hole.
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, January 1964 to July 1970.
DATUM.--Altitude of land-surface datum is 800 ft (243.8 m), by altimeter.
Measuring point: Front edge of cutout in recorder housing, 4.79 ft (1.460 m) above land-surface datum.
REMARKS.--Water level affected occasionally by nearby pumping.
PERIOD OF RECORD.--January 1964 to July 1970, April 1977 to current year. Periodic manual measurements, December 1970 to February 1975. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft (0.253 m) above land-surface datum, between Oct. 19, 1978 and Mar. 28, 1979; lowest, 15.29 ft (4.660 m) below land-surface datum, between Aug. 26 and Oct. 8, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 0.26 ft (0.079 m) above land-surface datum, between Mar. 18 and June 10; lowest, 6.45 ft (1.966 m) below land-surface datum, between Dec. 10 and Mar. 18.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 8, 1981 TO DEC. 10, 1981	0.72	3.30	DEC. 10, 1981	1.15
DEC. 10, 1981 TO MAR. 18, 1982	0.01	6.45	MAR. 18, 1982	1.31
MAR. 18, 1982 TO JUNE 10, 1982	-0.26*	6.36	JUNE 10, 1982	2.50
JUNE 10, 1982 TO SEPT. 29, 1982	1.28	6.37	SEPT. 29, 1982	2.10

* Water level above land surface.



MORRIS COUNTY

404937074220001. Local I.D., Green Acres Obs. NJ-WRD Well Number, 27-0006.

LOCATION.--Lat 40°49'37", long 74°22'00", Hydrologic Unit 02030103, 65 ft (19.8 m) northwest of the end of the paved portion of Weaver Place, East Hanover Township.

Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 6 in (152 mm), depth 104 ft (31.7 m), screened 94 to 104 ft (28.7 to 31.7 m).

INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, March 1967 to April 1975.

DATUM.--Altitude of land-surface datum is 181 ft (55.2 m), by altimeter.

Measuring point: Front edge of cutout in recorder housing, 4.16 ft (1.268 m) above land-surface datum.

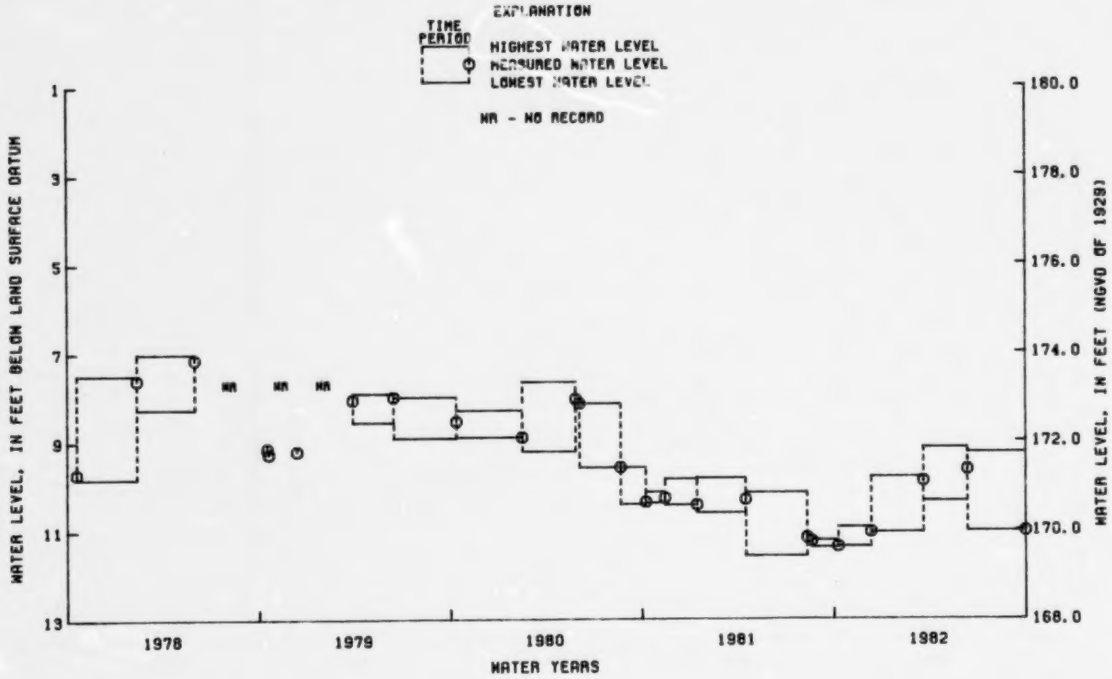
PERIOD OF RECORD.--March 1967 to April 1975, April 1977 to current year. Records for 1967 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.15 ft (1.265 m) below land-surface datum, Apr. 10, 1973; lowest, 11.58 ft (3.530 m) below land-surface datum, between Apr. 15 and Aug. 10, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level, 9.14 ft (2.786 m) below land-surface datum, between Mar. 18 and June 10; lowest, 11.37 ft (3.466 m) below land-surface datum, between Oct. 8 and Dec. 10.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 8, 1981 TO DEC. 10, 1981	10.93	11.37	DEC. 10, 1981	11.04
DEC. 10, 1981 TO MAR. 18, 1982	9.80	11.05	MAR. 18, 1982	9.90
MAR. 18, 1982 TO JUNE 10, 1982	9.14	10.35	JUNE 10, 1982	9.64
JUNE 10, 1982 TO SEPT. 29, 1982	9.25	11.02	SEPT. 29, 1982	11.02

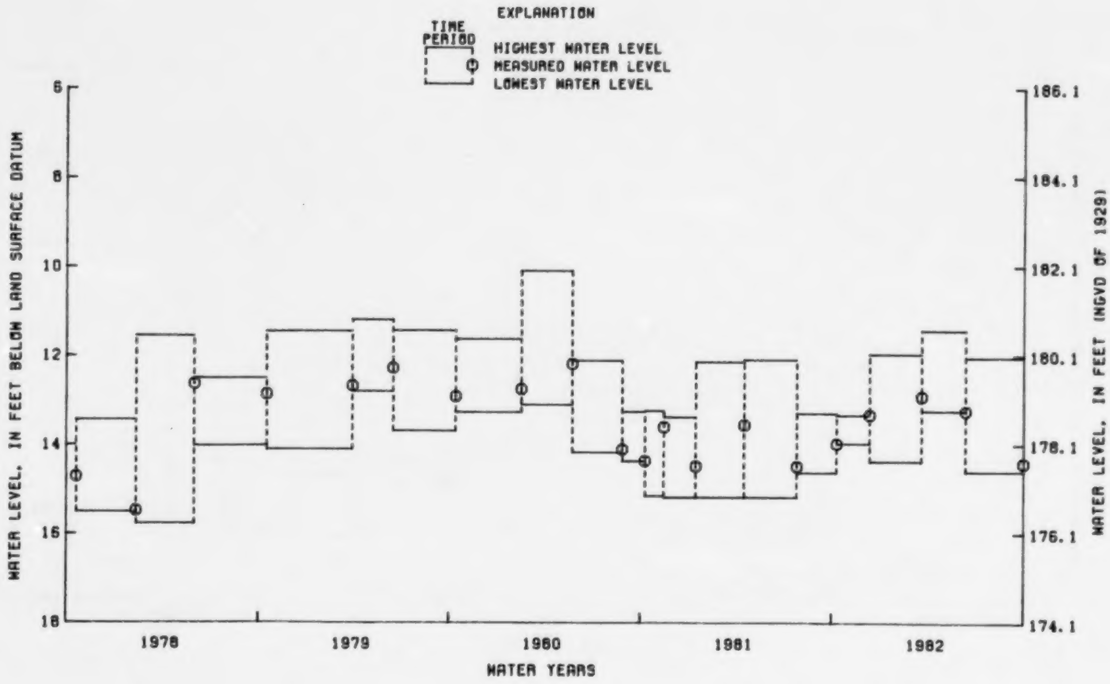


MORRIS COUNTY

405027074232301. Local I.D., Troy Meadows 1 Obs. NJ-WRD Well Number, 27-0020.
LOCATION.--Lat 40°50'27", long 74°23'23", Hydrologic Unit 02030103, on the east side of Beverwyck Road, 0.8 mi (1.3 km) north of intersection with Troy Road, Parsippany-Troy Hills Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 6 in (152 mm), depth 89 ft (27.1 m), screened 79 to 89 ft (24.1 to 27.1 m).
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, December 1965 to July 1970.
DATUM.--Land-surface datum is 192.07 ft (58.543 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.32 ft (1.012 m) above land-surface datum.
PERIOD OF RECORD.--December 1965 to July 1970, April 1977 to current year. Periodic manual measurements, December 1970 to February 1975. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.00 ft (1.829 m) below land-surface datum, Mar. 15-16, 1967 and June 15, 1968; lowest, 15.77 ft (4.807 m) below land-surface datum, between Feb. 10 and May 31, 1978.
EXTREMES FOR CURRENT YEAR.--Highest water level, 11.42 ft (3.481 m) below land-surface datum, between Mar. 18 and June 10; lowest, 14.60 ft (4.450 m) below land-surface datum, between June 10 and Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 8, 1981 TO DEC. 10, 1981	13.32	13.97	DEC. 10, 1981	13.32
DEC. 10, 1981 TO MAR. 18, 1982	11.95	14.37	MAR. 18, 1982	12.91
MAR. 18, 1982 TO JUNE 10, 1982	11.42	13.23	JUNE 10, 1982	13.23
JUNE 10, 1982 TO SEPT. 29, 1982	12.03	14.60	SEPT. 29, 1982	14.41



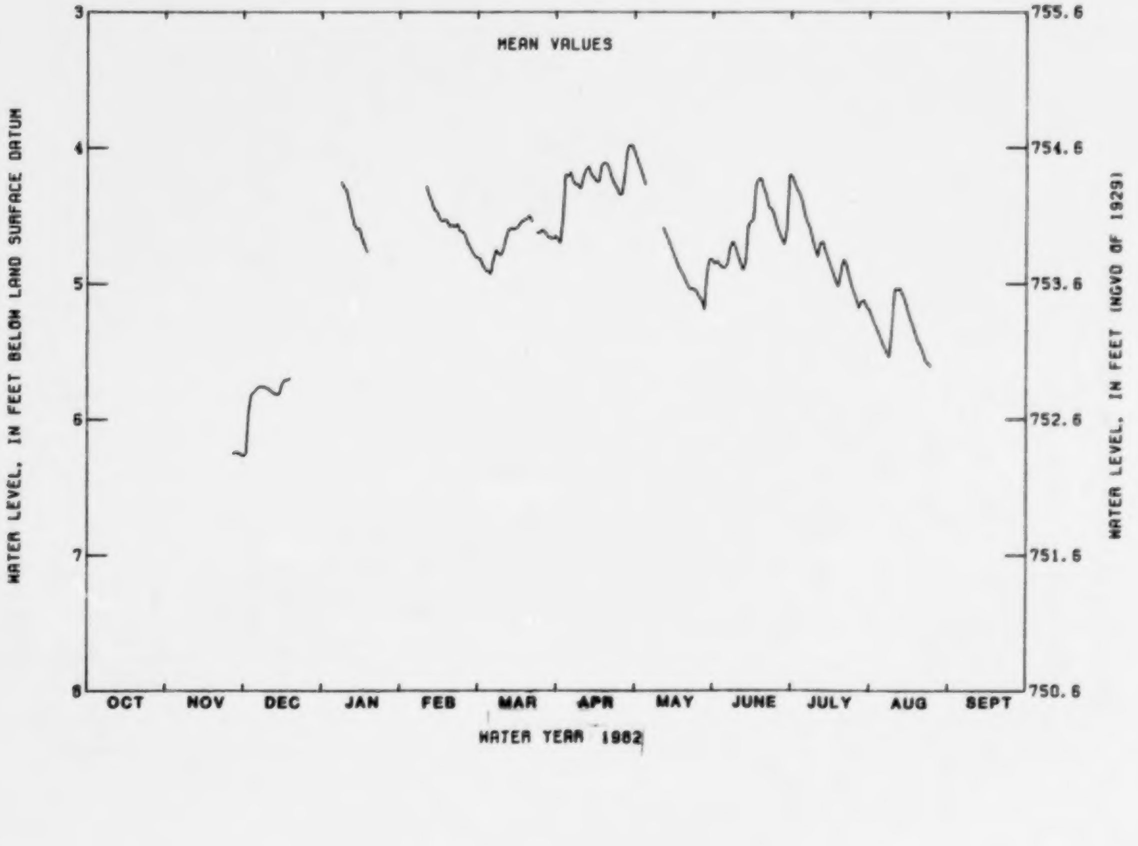
MORRIS COUNTY

410207074270001. Local I.D., Green Pond TW5 Obs. NJ-WRD Well Number, 27-0028.
LOCATION.--Lat 41°02'07", long 74°27'00", Hydrologic Unit 02030103, about 500 ft (152.4 m) east of Route 513 and 1.1 mi (1.8 km) south of intersection with Route 23, Rockaway Township.
Owner: State of New Jersey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 6 in (152 mm), depth 120 ft (36.6 m), screened 80 to 120 ft (24.4 to 36.6 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 758.56 ft (231.209 m) above National Geodetic Vertical Datum of 1929 (levels by Woodward-Clyde Consultants).
Measuring point: Top edge of recorder shelf, 1.20 ft (0.366 m) above land-surface datum.
PERIOD OF RECORD.--Current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.98 ft (1.213 m) below land-surface datum, Apr. 28-29, 1982; lowest, 6.28 ft (1.914 m) below land-surface datum, Dec. 1, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		---	5.78	---	---	4.91	4.21	4.27	4.88	4.40	5.43	
10		---	5.78	4.41	4.35	4.79	4.30	---	4.79	4.74	5.04	
15		---	5.74	4.67	4.54	4.60	4.22	4.74	4.54	4.81	5.20	
20		---	---	---	4.58	4.52	4.12	4.95	4.30	4.92	5.46	
25		6.26	---	---	4.70	4.63	4.34	5.06	4.57	5.06	---	
EOM		6.27	---	---	4.80	4.65	3.99	4.82	4.20	5.19	---	
MEAN		---	---	---	4.56	4.68	4.24	4.76	4.62	4.79	5.34	

WTR YR 1982 MEAN 4.81 HIGH 3.98 APR 28 AND OTHERS LOW 6.27 NOV 30

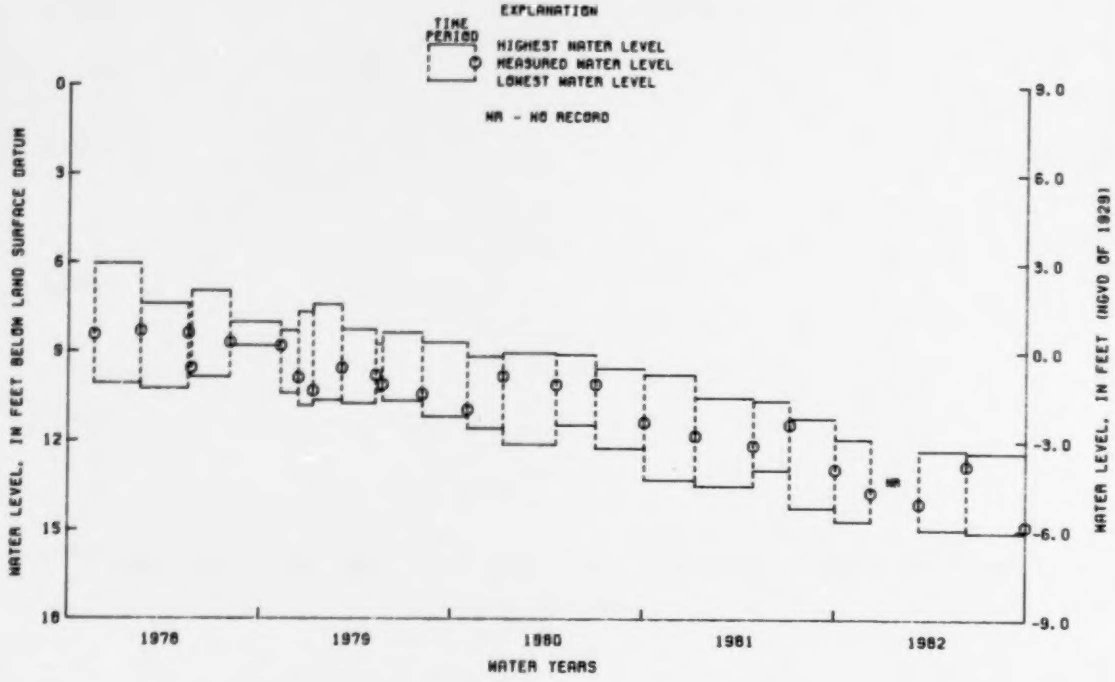


OCEAN COUNTY

394829074053503. Local I.D., Island Beach 3 Obs. NJ-WRD Well Number, 29-0019.
LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi (10.6 km) south of main entrance, Berkeley Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 2,756 ft (840.0 m), screened 2,736 to 2,756 ft (833.9 to 840.0 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, November 1968 to March 1975.
DATUM.--Land-surface datum is 9.02 ft (2.749 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 5.11 ft (1.558 m) above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--November 1968 to March 1975, February 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.95 ft (1.814 m) above land-surface datum, Apr. 23, 1969; lowest, 15.07 ft (4.593 m) below land-surface datum, between June 8 and Sept. 29, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 11.92 ft (3.633 m) below land-surface datum, between Oct. 1 and Dec. 8; lowest, 15.07 ft (4.593 m) below land-surface datum, between June 8 and Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 1, 1981 TO DEC. 8, 1981	11.92	14.69	DEC. 8, 1981	13.72
DEC. 8, 1981 TO MAR. 9, 1982	---	---	MAR. 9, 1982	14.09
MAR. 9, 1982 TO JUNE 8, 1982	12.30	14.97	JUNE 8, 1982	12.82
JUNE 8, 1982 TO SEPT. 29, 1982	12.38	15.07	SEPT. 29, 1982	14.84

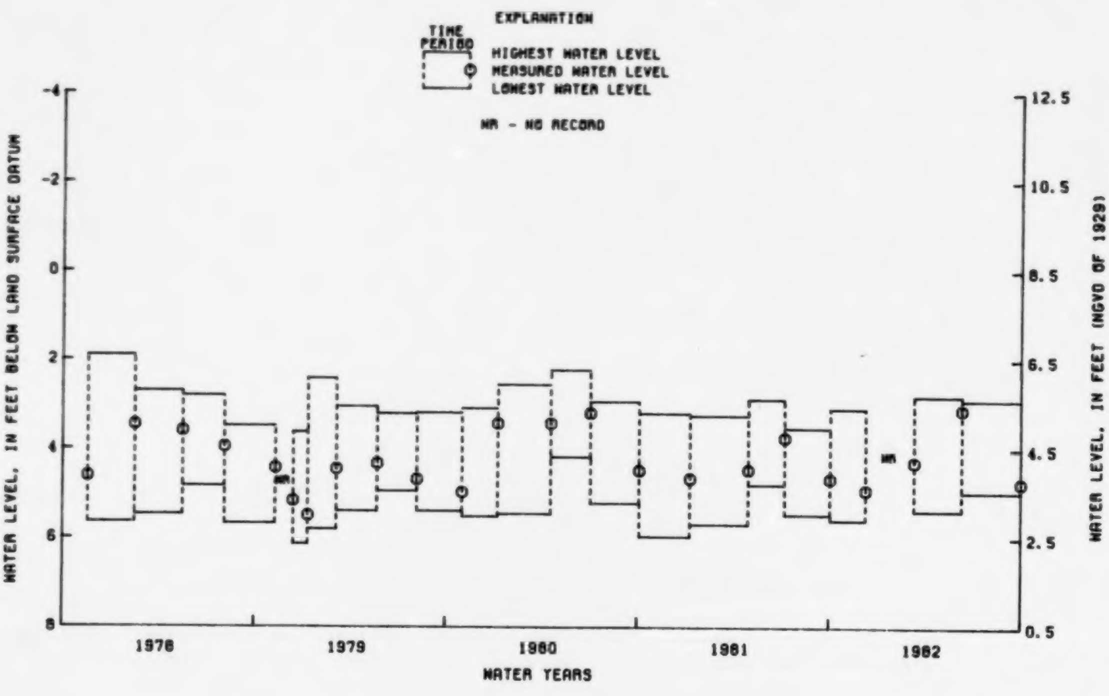


OCEAN COUNTY

394829074053501. Local I.D., Island Beach 1 Obs. NJ-WRD Well Number, 29-0017.
LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi (10.6 km) south of main entrance, Berkeley Township.
Owner: U.S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 397 ft (121.0 m), screened 377 to 397 ft (114.9 to 121.0 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, July 1962 to March 1975.
DATUM.--Land-surface datum is 8.50 ft (2.591 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.40 ft (1.036 m) above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--July 1962 to March 1975, February 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.05 ft (0.015 m) below land-surface datum, Dec. 6, 1962; lowest, 6.14 ft (1.871 m) below land-surface datum, between Dec. 13, 1978 and Jan. 10, 1979.
EXTREMES FOR CURRENT YEAR.--Highest water level, 2.80 ft (0.853 m) below land-surface datum, between Mar. 9 and June 8; lowest, 5.59 ft (1.704 m) below land-surface datum, between Oct. 1 and Dec. 8.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 1, 1981 TO DEC. 8, 1981	3.08	5.59	DEC. 8, 1981	4.91
DEC. 8, 1981 TO MAR. 9, 1982	---	---	MAR. 9, 1982	4.29
MAR. 9, 1982 TO JUNE 8, 1982	2.80	5.38	JUNE 8, 1982	3.10
JUNE 8, 1982 TO SEPT. 29, 1982	2.89	4.96	SEPT. 29, 1982	4.75



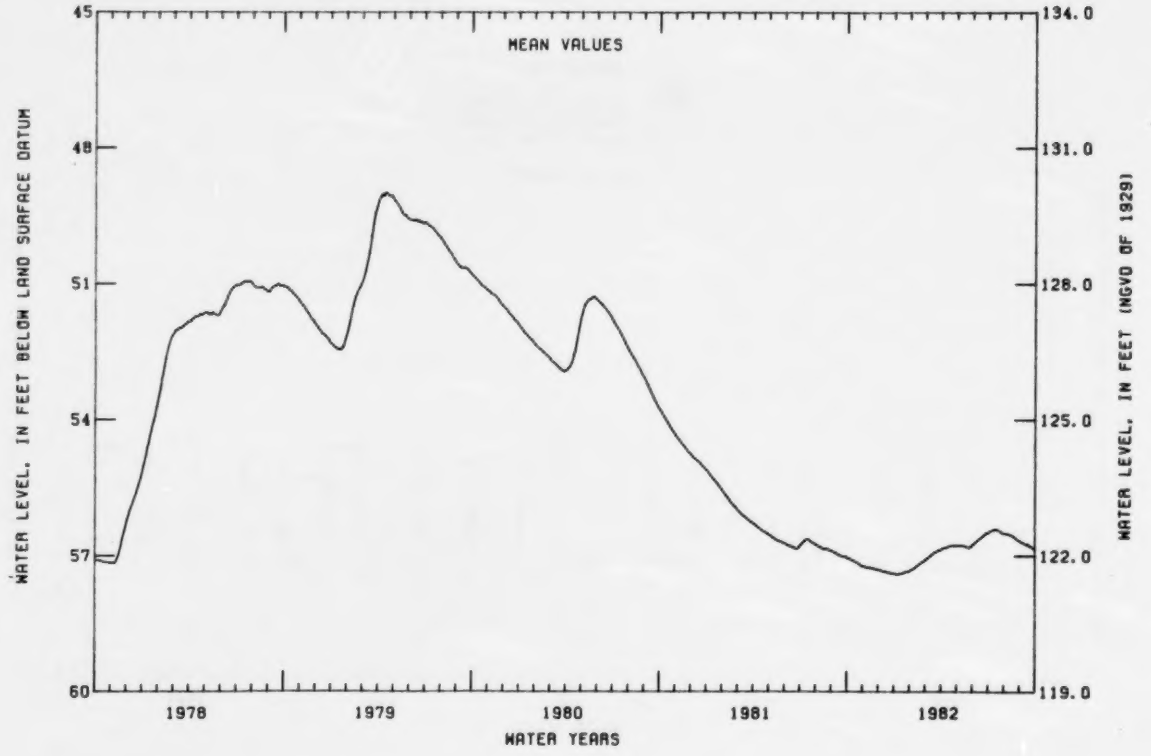
OCEAN COUNTY

395714074223401. Local I.D., Crammer Obs. NJ-WRD Well Number, 29-0486.
LOCATION.--Lat 39°57'14", long 74°22'34", Hydrologic Unit 02040301, about 800 ft (244 m) east of Central Railroad of New Jersey, Whiting.
Owner: Frank Reynolds.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Water-table observation well, diameter 8 in (203 mm), depth 69 ft (21.0 m), slotted steel casing, gravel packed.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 179.00 ft (54.559 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 8-inch coupling, 0.90 ft (0.270 m) above land-surface datum.
REMARKS.--Originally a dug well in which casing was inserted on March 31, 1966, and the well deepened from 60 to 69 ft (18.3 to 21.0 m).
PERIOD OF RECORD.--May 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 47.80 ft (14.569 m) below land-surface datum, June 9-14, 20-29, 1973; lowest, 57.58 ft (17.550 m) below land surface datum, June 1, 1966; well was dry, November 1957 to February 1958, and December 1965, before deepening.
EXTREMES FOR CURRENT YEAR.--Highest water level, 56.40 ft (17.191 m) below land-surface datum, July 13-17; lowest, 57.40 ft (17.496 m) below land-surface datum, Jan. 2-9.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.06	57.24	57.31	57.40	57.28	57.04	56.82	56.76	56.70	56.45	56.50	56.70
10	57.09	57.25	57.34	57.39	57.24	57.00	56.81	56.76	56.66	56.41	56.52	56.73
15	57.11	57.26	57.35	57.38	57.19	56.96	56.78	56.77	56.61	56.40	56.54	56.73
20	57.15	57.27	57.37	57.36	57.15	56.91	56.76	56.79	56.56	56.41	56.58	56.79
25	57.19	57.29	57.38	57.34	57.11	56.88	56.76	56.81	56.51	56.46	56.62	56.80
EOM	57.23	57.31	57.39	57.31	57.09	56.85	56.77	56.75	56.48	56.50	56.67	56.87
MEAN	57.13	57.26	57.35	57.37	57.20	56.95	56.79	56.78	56.60	56.44	56.56	56.76

WTR YR 1982 MEAN 56.93 HIGH 56.40 JUL 14 AND OTHERS LOW 57.40 JAN 2 AND OTHERS

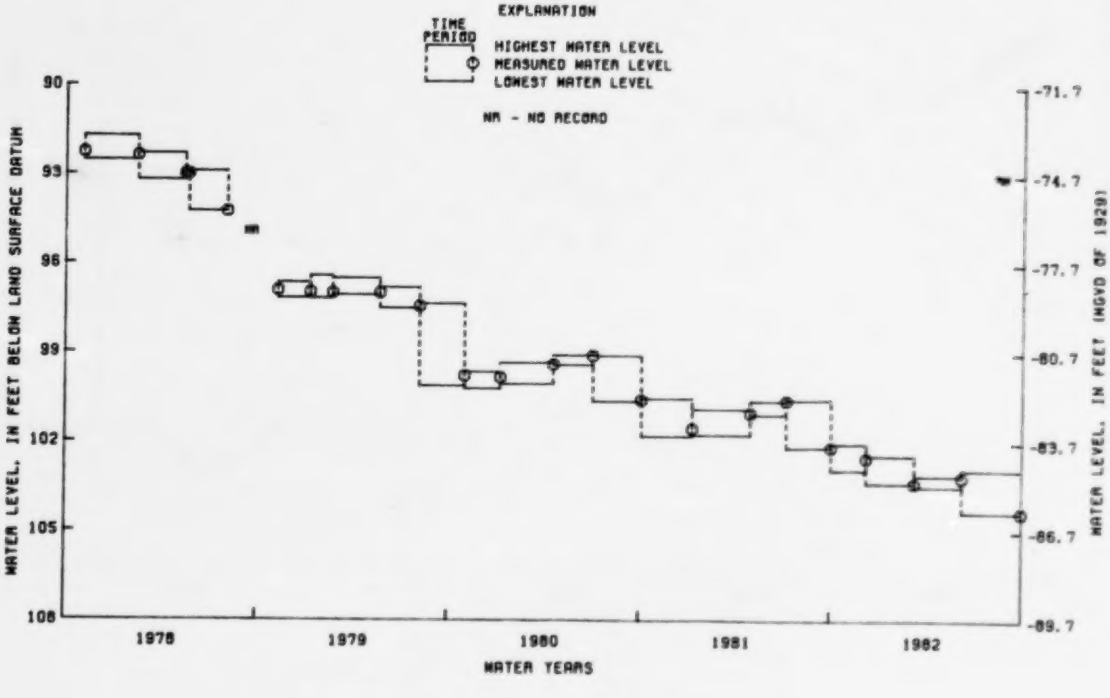


OCEAN COUNTY

395609074124001. Local I.D., Toms River TW 2 Obs. NJ-WRD Well Number, 29-0534.
LOCATION.--Lat 39°56'09", long 74°12'40", Hydrologic Unit 02040301, about 200 ft (61.0 m) east of Double Trouble Road on the north side of Jakes Branch, South Toms River.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 1,146 ft (349.3 m), screened 1,080 to 1,146 ft (329.2 to 349.3 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, December 1965 to March 1975.
DATUM.--Land-surface datum is 18.34 ft (5.590 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.70 ft (0.518 m) above land-surface datum.
PERIOD OF RECORD.--December 1965 to March 1975, February 1977 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.37 ft (14.743 m) below land-surface datum, May 28, 1966; lowest, 104.34 ft (31.803 m) below land-surface datum, between June 8 and Sept. 29, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 102.05 ft (31.105 m) below land-surface datum, between Oct. 1 and Dec. 8; lowest, 104.34 ft (31.803 m) below land-surface datum, between June 8 and Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 1, 1981 TO DEC. 8, 1981	102.05	102.94	DEC. 8, 1981	102.53
DEC. 8, 1981 TO MAR. 9, 1982	102.44	103.37	MAR. 9, 1982	103.37
MAR. 9, 1982 TO JUNE 8, 1982	103.10	103.48	JUNE 8, 1982	103.16
JUNE 8, 1982 TO SEPT. 29, 1982	102.91	104.34	SEPT. 29, 1982	104.34



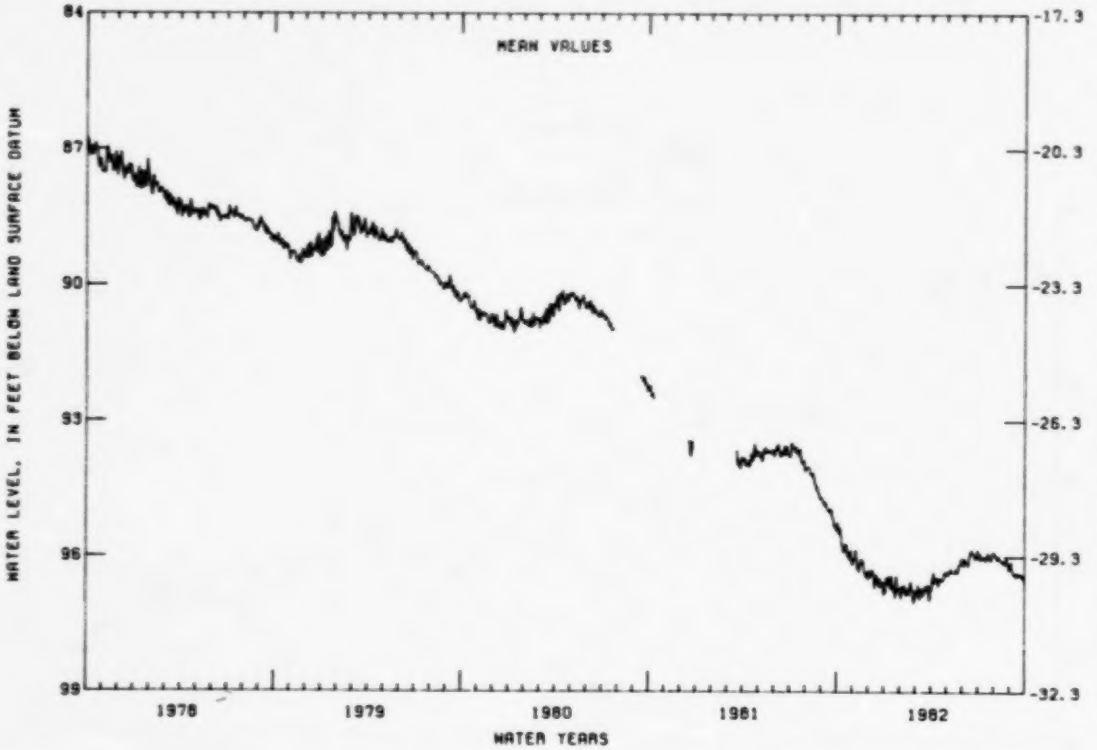
OCEAN COUNTY

395930074142101. Local I.D., Toms River Chem 84 Obs. NJ-WRD Well Number, 29-0085.
LOCATION.--Lat 39°59'29", long 74°14'20", Hydrologic Unit 02040301, at Toms River Plant, Ciba-Geigy Corporation, Dover Township.
Owner: Ciba-Geigy Corporation.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 1,480 ft (451 m), screened 1,460 to 1,480 ft (445 to 451 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 66.71 ft (20.333 m), revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.70 ft (0.820 m) above laud-surface datum.
PERIOD OF RECORD.--July 1968 to July 1975, March 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 62.32 ft (18.995 m) below land-surface datum, July 19, 1968 and Feb. 9, 1969; lowest, 97.03 ft (29.575 m) below land-surface datum, Feb. 26, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 95.21 ft (29.020 m) below land-surface datum, Oct. 2; lowest, 97.03 ft (29.575 m) below land-surface datum, Feb. 26.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	95.48	96.06	96.39	96.46	96.79	96.72	96.60	96.40	96.06	96.02	96.00	96.32
10	95.70	96.27	96.34	96.45	96.67	96.93	96.54	96.25	96.12	96.01	95.98	96.34
15	95.82	96.07	96.40	96.44	96.77	96.86	96.63	96.34	95.97	96.07	96.08	96.35
20	95.93	96.06	96.59	96.70	96.59	96.74	96.51	96.24	95.87	95.90	96.08	96.38
25	96.05	96.35	96.66	96.58	96.88	96.70	96.49	96.17	96.04	96.07	96.00	96.46
EOM	96.17	96.48	96.83	96.67	96.94	96.72	96.37	96.03	95.83	95.88	96.25	96.58
MEAN	95.75	96.18	96.51	96.62	96.75	96.77	96.50	96.27	96.01	95.99	96.07	96.37

WTR YR 1982 MEAN 96.31 HIGH 95.23 OCT 2 LOW 97.01 FEB 26



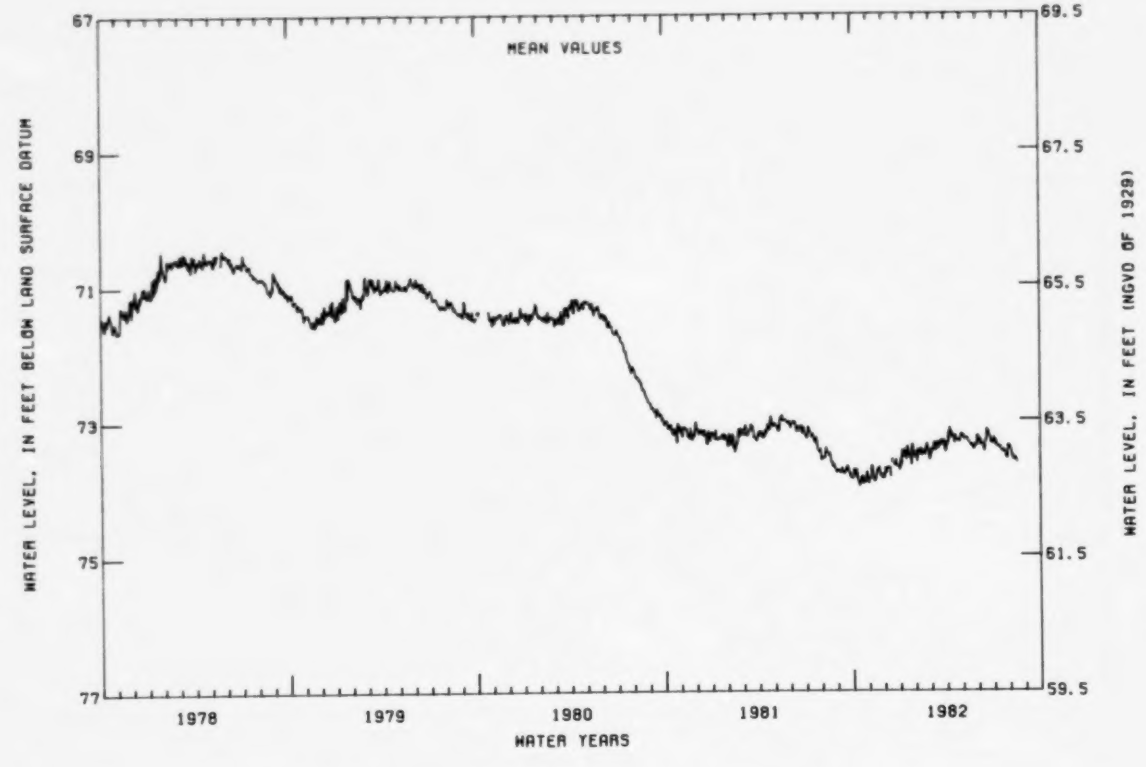
OCEAN COUNTY

400416074270101. Local I.D., Colliers Mills TW 1 Obs. NJ-WRD Well Number, 29-0138.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 427 ft (130.2 m), screened 417 to 427 ft (127.1 to 130.2 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 136.52 ft (41.611 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch coupling, 2.20 ft (0.670 m) above land-surface datum.
PERIOD OF RECORD.--February 1964 to July 1975, March 1977 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.02 ft (15.856 m) below land-surface datum, Feb. 19, 1964; lowest, 73.97 ft (22.546 m) below land-surface datum, Oct. 13-14, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 73.03 ft (22.260 m) below land-surface datum, Apr. 6; lowest, 73.97 ft (22.546 m) below land-surface datum, Oct. 13-14.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.84	73.82	73.76	73.50	73.52	73.41	73.29	73.29	73.30	73.37	73.52	
10	73.88	73.90	---	73.46	73.45	73.45	73.25	73.27	73.40	73.40	73.54	
15	73.91	73.75	73.61	73.41	73.48	73.42	73.33	73.35	73.31	73.45	73.62	
20	73.93	73.69	73.66	73.52	73.37	73.35	73.28	73.35	73.20	73.43	---	
25	73.92	73.84	73.68	73.43	73.53	73.34	73.32	73.35	73.34	73.56	---	
EOM	73.93	73.86	73.71	73.46	73.54	73.35	73.24	73.25	73.25	73.39	---	
MEAN	73.86	73.81	73.70	73.51	73.48	73.39	73.26	73.32	73.31	73.42	73.54	

WTR YR 1982 MEAN 73.50 HIGH 73.11 APR 6 LOW 73.97 OCT 13



OCEAN COUNTY

400416074270103. Local I.D., Colliers Mills TW 3 Obs. NJ-WRD Well Number, 29-0140.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 270 ft (82.3 m), screened 257 to 267 ft (78.3 to 81.4 m).
INSTRUMENTATION.--Water-level extremes recorder, October 1976 to current year. Water-level recorder, January 1964 to July 1975.
DATUM.--Land-surface datum is 135.15 ft (41.194 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.49 ft (1.064 m) above land-surface datum.
PERIOD OF RECORD.--January 1964 to July 1975, October 1976 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.72 ft (4.791 m) below land-surface datum, May 9, 1964; lowest, 22.76 ft (6.937 m) below land-surface datum, between Oct. 6 and Jan. 26, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 21.25 ft (6.477 m) below land-surface datum, between July 27 and Oct. 1, 1982; lowest, 22.76 ft (6.937 m) below land-surface datum, between Oct. 6 and Jan. 26.

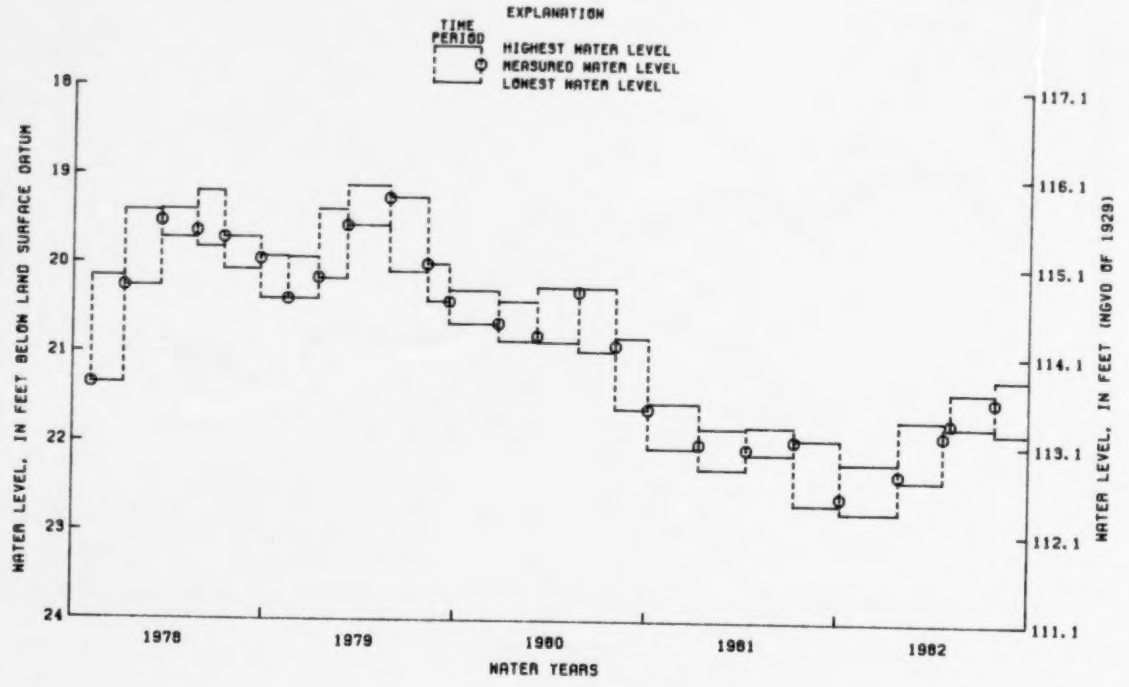
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 6, 1981 TO JAN. 26, 1982	22.20	22.76
JAN. 26, 1982 TO APR. 20, 1982	21.72	22.40
APR. 20, 1982 TO MAY 3, 1982	---	---
MAY 3, 1982 TO JULY 27, 1982	21.40	21.79
JULY 27, 1982 TO OCT. 1, 1982	21.25	21.86

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 26, 1982	22.33
APR. 20, 1982	21.89
MAY 3, 1982	21.75
JULY 27, 1982	21.50
OCT. 1, 1982	21.77



OCEAN COUNTY

400416074270102. Local I.D., Colliers Mills TW 2 Obs. NJ-WRD Well Number, 29-0139.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Vincentown Formation of Paleocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 171 ft (52.1 m), screened 161 to 171 ft (49.1 to 52.1 m).
INSTRUMENTATION.--Water-level extremes recorder, October 1976 to current year. Water-level recorder, January 1964 to August 1975.
DATUM.--Land-surface datum is 135.76 ft (41.380 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.10 ft (0.945 m) above land-surface datum.
PERIOD OF RECORD.--January 1964 to August 1975, October 1976 to current year. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.04 ft (1.231 m) below land-surface datum, Apr. 27-28, 1973; lowest, 6.71 ft (2.045 m) below land-surface datum, between Oct. 6, 1981 and Jan. 26, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 5.31 ft (1.618 m) below land-surface datum, between July 27 and Oct. 1, 1982; lowest, 6.71 ft (2.045 m) below land-surface datum, between Oct. 6 and Jan. 26.

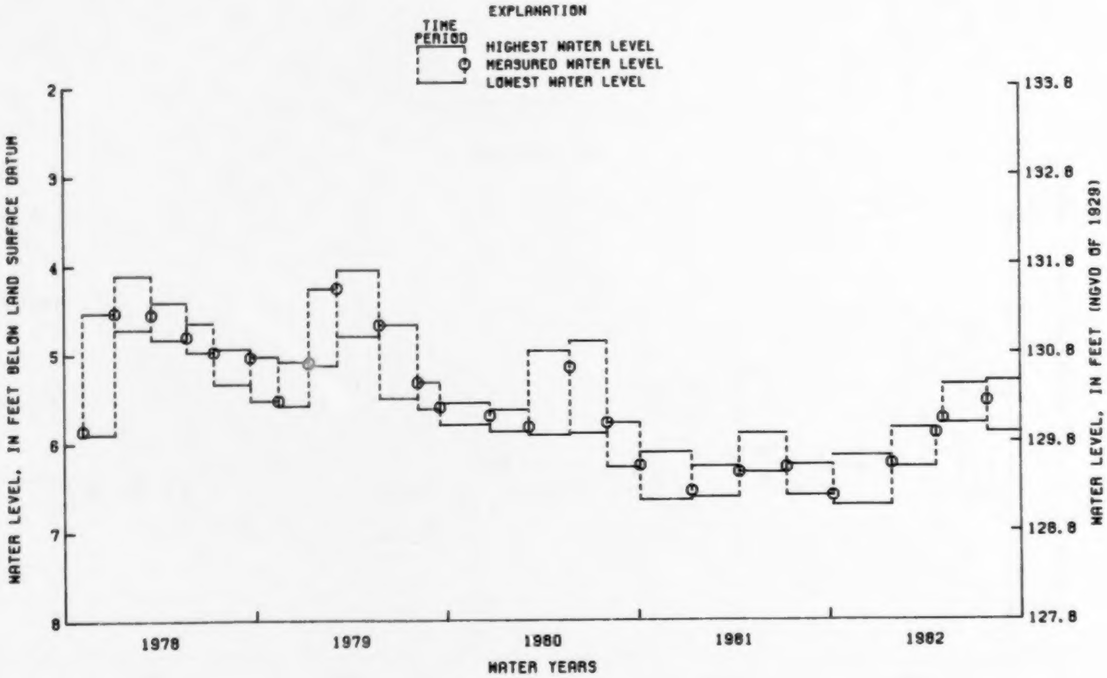
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 6, 1981 TO JAN. 26, 1982	6.15	6.71
JAN. 26, 1982 TO APR. 20, 1982	5.84	6.28
APR. 20, 1982 TO MAY 3, 1982	---	---
MAY 3, 1982 TO JULY 27, 1982	5.35	5.79
JULY 27, 1982 TO OCT. 1, 1982	5.31	5.89

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 26, 1982	6.24
APR. 20, 1982	5.90
MAY 3, 1982	5.74
JULY 27, 1982	5.54
OCT. 1, 1982	5.89



OCEAN COUNTY

400416074270104. Local I.D., Colliers Mills TW 4 Obs. NJ-WRD Well Number, 29-0141.

LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.

Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in (152 mm), depth 71 ft (21.6 m), gravel-filled hole 46 to 71 ft (14.0 to 21.6 m).

INSTRUMENTATION.--Water-level extremes recorder, October 1976 to current year. Water-level recorder, March 1964 to April 1975.

DATUM.--Land-surface datum is 135.31 ft (41.242 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.86 ft (0.872 m) above land-surface datum.

REMARKS.--Water level affected by stage of Colliers Mills Pond.

PERIOD OF RECORD.--March 1964 to April 1975, October 1976 to current year. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.78 ft (1.152 m) below land-surface datum, between Jan. 10 and Mar. 5, 1979; lowest, 5.68 ft (1.731 m) below land-surface datum, between Jan. 9 and Apr. 9, 1981 and between Apr. 9 and July 9, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level, 4.38 ft (1.335 m) below land-surface datum, between July 27 and Oct. 1, 1982; lowest, 5.53 ft (1.686 m) below land-surface datum, between Oct. 6 and Jan. 26.

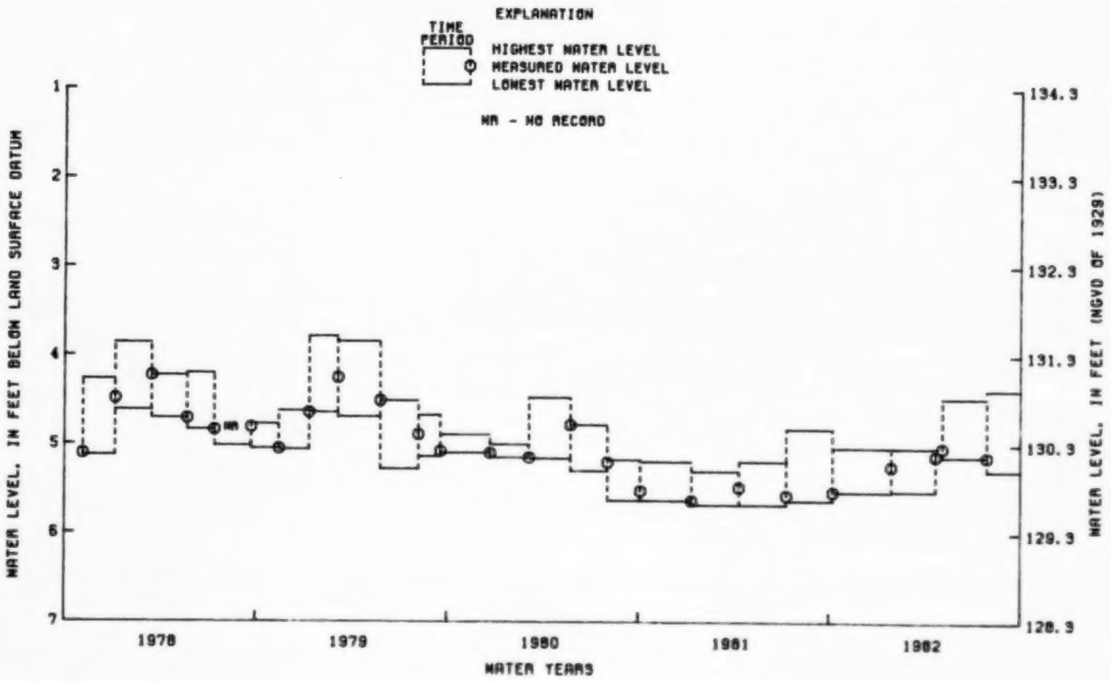
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 6, 1981 TO JAN. 26, 1982	5.03	5.53
JAN. 26, 1982 TO APR. 20, 1982	5.03	5.52
APR. 20, 1982 TO MAY 3, 1982	---	---
MAY 3, 1982 TO JULY 27, 1982	4.47	5.13
JULY 27, 1982 TO OCT. 1, 1982	4.38	5.29

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 26, 1982	5.24
APR. 20, 1982	5.12
MAY 3, 1982	5.03
JULY 27, 1982	5.13
OCT. 1, 1982	5.29



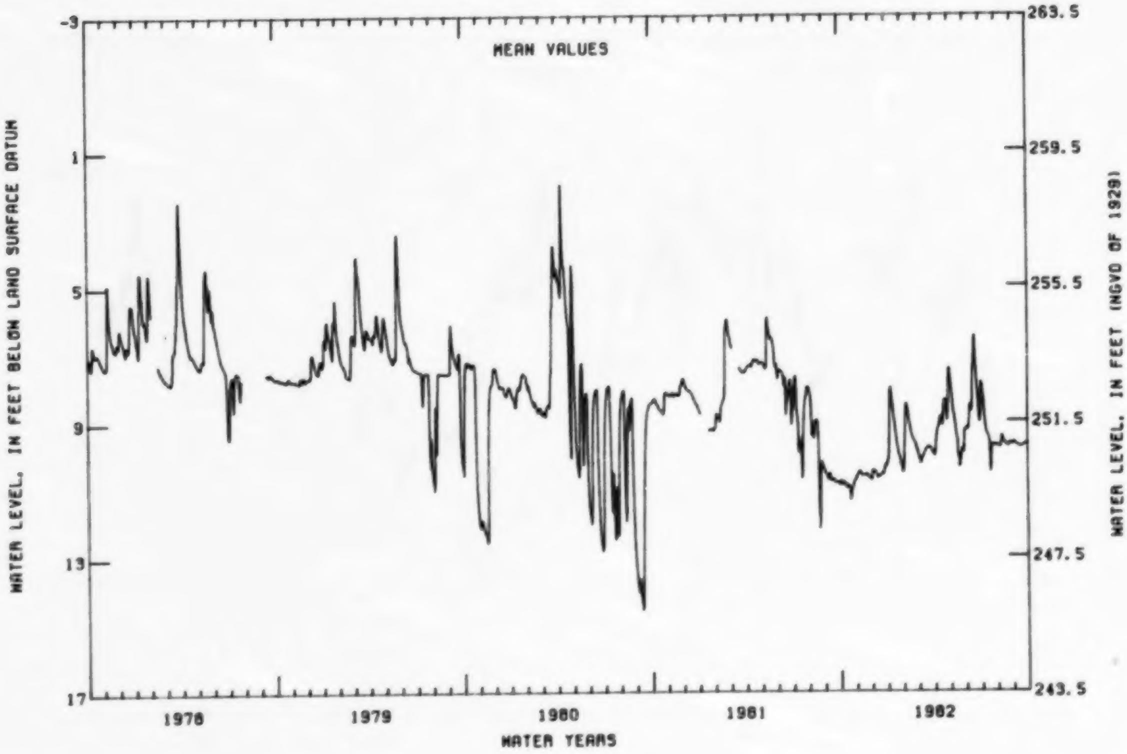
PASSAIC COUNTY

410209074170801. Local I.D., Haskell Obs. NJ-WRD Well Number, 31-0011.
LOCATION.--Lat 41°02'09", long 74°17'08", Hydrologic Unit 02030103, at well field at north end of 4th Avenue, Wanaque.
Owner: Wanaque Water Department.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 16 ft (4.9 m), depth 26 ft (7.9 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 260.50 ft (79.400 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of concrete pump base, 2.20 ft (0.670 m) above land-surface datum.
REMARKS.--Water level affected by stage of Wanaque River and by nearby pumping.
PERIOD OF RECORD.--May 1965 to August 1970, April 1977 to current year, (discontinued). Records for 1965 to 1970 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.64 ft (0.500 m) below land-surface datum, Apr. 10, 1980; lowest, 16.01 ft (4.880 m) below land-surface datum, Aug. 30, 1965.
EXTREMES FOR CURRENT YEAR.--Highest water level, 6.38 ft (1.945 m) below land-surface datum, June 18; lowest, 11.44 ft (3.487 m) below land-surface datum, Oct. 20-21.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.86	10.55	10.49	8.10	8.48	10.18	9.48	8.24	9.26	8.30	9.76	9.67
10	10.88	10.55	10.57	8.56	8.91	10.07	9.11	8.89	8.51	9.23	9.43	9.72
15	10.87	10.58	10.63	9.22	9.36	9.89	8.97	9.49	7.40	9.45	9.61	9.76
20	11.15	10.58	10.57	9.76	9.57	9.78	8.41	10.36	7.06	10.28	9.72	9.75
25	10.95	10.65	10.43	10.14	9.76	9.82	8.82	9.82	8.46	9.71	9.66	9.69
EOM	10.71	10.74	10.22	10.52	9.93	9.96	7.43	9.27	8.25	9.71	9.69	9.66
MEAN	10.91	10.60	10.51	9.48	9.35	9.94	8.92	9.26	8.33	9.31	9.67	9.70

WTR YR 1982 MEAN 9.67 HIGH 6.47 JUN 18 LOW 11.33 OCT 21

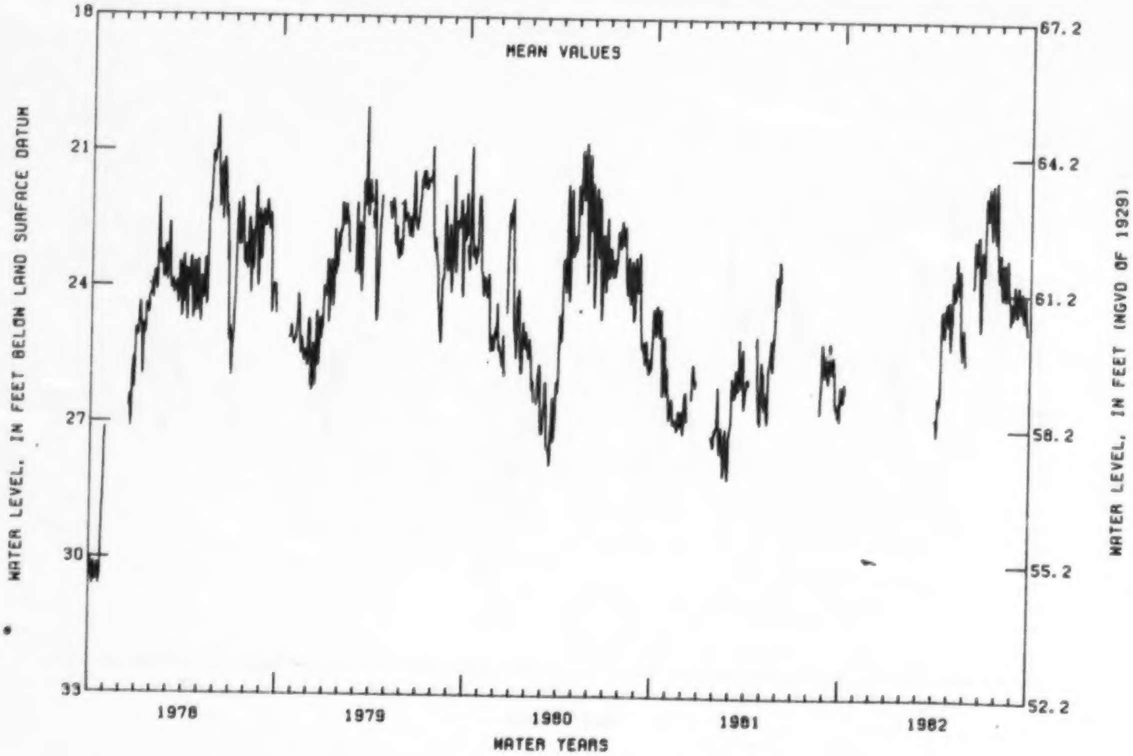


UNION COUNTY

404027074164401. Local I.D., White Lab. 3 Obs. NJ-WRD Well Number, 39-0102.
LOCATION.--Lat 40°40'27", long 74°16'44", Hydrologic Unit 02030104, at north end of South 31st Street, Kenilworth.
Owner: Schering Corporation.
AQUIFER.--Brunswick Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), cased to 49 ft (14.9 m), depth 251 ft (76.5 m), open hole.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 85.22 ft (25.975 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf at land-surface datum.
REMARKS.--Land-surface datum prior to February 1974, 4.20 ft (1.280 m) lower. Water level affected by nearby pumping. Recorder removed from October 1981 to March 1982 because of construction near well.
PERIOD OF RECORD.--September 1952 to current year. Records for March to August 1952, published in WSP 1265, are unreliable and should not be used.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.51 ft (3.203 m) below land-surface datum, Apr. 17, 1961; lowest, 30.70 ft (9.357 m) below land-surface datum, Oct. 7, 1977, revised.
EXTREMES FOR CURRENT YEAR.--Highest water level, 21.33 ft (6.501 m) below land-surface datum, July 25; lowest, 27.34 ft (8.333 m) below land-surface datum, Apr. 2.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.01					---	26.34	24.06	---	21.84	23.99	24.10
10	---					---	25.03	23.21	---	22.10	23.81	24.38
15	---					---	24.84	23.98	23.23	22.53	23.40	24.37
20	---					---	24.48	25.23	22.73	22.32	24.13	24.04
25	---					---	24.15	25.14	24.80	21.49	24.30	---
EOM	---					26.81	24.67	---	23.27	23.59	24.11	24.88
MEAN	---					---	25.18	24.38	23.45	22.46	23.92	24.34



QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

ATLANTIC COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
367	LONGPORT BORO WD 2	39 18 59	074 31 22	10	750-800	122KRKDL	82-09-09	19.0	177	7.4	7.3
582	NJWC-ATL CO-DOBBS AVE	39 19 05	074 36 31	20	79- 99	121CKKD	82-09-10	15.0	134	5.0	23
370	MARGATE CITY WD 6	39 19 32	074 30 57	10	740-790	122KRKDL	82-09-09	19.0	173	7.4	7.3
593	VENTNOR CITY WD 10	39 20 19	074 29 45	7	740-790	122KRKDL	82-09-09	19.0	167	7.4	4.6
600	VENTNOR CITY WD 8	39 20 45	074 28 40	8	750-810	122KRKDL	82-09-09	19.0	144	7.3	3.6
549	NJWC-ATL CO-MILL ROAD	39 21 58	074 33 17	20	117-152	121CKKD	82-09-10	13.5	124	5.0	15
39	BRIGANTINE CITY WD 4-66	39 23 29	074 23 27	10	733-783	122KRKDL	82-09-09	18.5	149	7.2	4.0
683	BRIGANTINE CITY WD 5-80	39 24 11	074 22 26	10	730-780	122KRKDL	82-09-09	18.5	160	7.0	5.6
568	ATLANTIC CITY MUA 15-61	39 24 48	074 30 28	8	583-633	122KRKDL	82-09-10	19.0	116	7.0	2.3
42	BRIGANTINE CITY WD 2-29	39 24 56	074 21 22	12	718-778	122KRKDL	82-09-09	19.0	89	7.2	2.4
5	ATLANTIC CITY MUA 9	39 25 14	074 30 52	5	180-210	121CKKD	82-09-10	14.0	59	5.4	6.6
575	ATLANTIC CITY MUA 12	39 25 48	074 31 08	5	145-195	121CKKD	82-09-10	13.5	56	6.0	5.0
13	NJWC-ATL CO-ABSECON 1	39 25 51	074 30 23	30	177-205	121CKKD	82-09-10	13.0	52	4.8	6.7

Geologic unit (aquifer):

121CKKD - Kirkwood-Cohansey aquifer system
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

BERGEN COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	HARD, NESS (MG/L AS CACO3)
14	OAKLAND WD-BUSH 5	41 01 25	074 15 04	220	108-128	112SFDF	82-05-21	13.0	580	7.6	210
94	OAKLAND WD-BUSH 4	41 01 26	074 15 08	220	112-126	112SFDF	82-05-21	12.0	330	7.4	140
29	OAKLAND WD 9 (RT 208)	41 01 34	074 13 49	310	85 -95 100-150	112SFDF 231BRCK	82-05-21	11.5	360	6.6	150
6	OAKLAND WD-SOONS 7	41 03 01	074 13 27	240	63 -83	112SFDF	82-05-21	10.5	377	6.6	150
9	OAKLAND WD-SOONS 8	41 03 02	074 13 30	240	87-112	112SFDF	82-05-21	10.5	240	6.7	100
23	MAHWAH WD 16	41 05 06	074 11 02	250	116-149	112SFDF	82-05-21	11.5	225	8.5	89
13	MAHWAH WD-FORD 1	41 05 42	074 10 25	254	83-103	112SFDF	82-05-21	8.5	200	7.0	56
19	MAHWAH WD-FORD 4	41 05 44	074 10 24	254	70 -95	112SFDF	82-05-21	12.0	263	7.0	72

LOCAL IDENTIFIER	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OAKLAND WD-BUSH 5	62	13	22	1.1	30	28	62	<.1	18	355
OAKLAND WD-BUSH 4	41	8.7	8.5	.8	110	23	25	.3	16	229
OAKLAND WD 9 (RT 208)	46	8.9	9.5	.7	100	38	22	<.1	20	243
OAKLAND WD-SOONS 7	45	10	9.8	.8	97	23	40	<.1	21	261
OAKLAND WD-SOONS 8	30	6.3	7.3	.5	73	18	16	<.1	18	155
MAHWAH WD 16	25	6.5	5.1	.7	10	20	18	.1	15	139
MAHWAH WD-FORD 1	16	3.9	11	.6	12	16	35	<.1	7.7	138
MAHWAH WD-FORD 4	21	4.8	18	.7	8	19	44	.1	9.8	173

LOCAL IDENTIFIER	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OAKLAND WD-BUSH 5	3.8	.40	<.010	1.2
OAKLAND WD-BUSH 4	1.7	<.10	<.010	1.2
OAKLAND WD 9 (RT 208)	2.3	.30	.030	.7
OAKLAND WD-SOONS 7	2.9	.30	<.010	2.2
OAKLAND WD-SOONS 8	.92	.70	.020	.9
MAHWAH WD 16	.43	.70	<.010	.9
MAHWAH WD-FORD 1	.15	.30	<.010	1.1
MAHWAH WD-FORD 4	.37	.20	<.010	1.1

Geologic unit (aquifer):

112SFDF - Stratified drift
231BRCK - Brunswick Formation

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

CAPE MAY COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
17	US COAST GUARD 1	38 56 50	074 53 11	11	292-322	121CNSY	82-09-16	15.5	340	7.6	32
18	US COAST GUARD 2	38 56 52	074 53 27	11	295-325	121CNSY	82-09-16	16.0	360	7.5	41
41	F H SNOW CANNING CO 2	38 57 22	074 52 41	10	280-320	121CNSY	82-09-16	15.5	320	7.7	30
154	WILDWOOD WD PINE 2	38 59 32	074 48 51	10	304-354	121CNSY	82-09-15	15.5	334	7.4	53
132	STONE HARBOR WD 4	39 03 01	074 45 45	10	830-880	122KRKDL	82-09-15	20.0	380	8.6	46
173	STONE HARBOR WD 6-82	39 03 14	074 45 32	10	822-862	122KRKDL	82-09-15	19.5	295	8.7	19
2	AVALON BORO WD 7-71	39 04 20	074 44 35	5	821-861	122KRKDL	82-09-15	20.0	248	8.5	15
4	AVALON BORO WD 6-68	39 05 28	074 43 38	10	880-920	122KRKDL	82-09-15	20.0	370	8.6	48
5	AVALON BORO WD 8-76	39 05 45	074 43 26	8	784-839	122KRKDL	82-09-15	19.5	228	8.4	12
8	AVALON BORO WD 3-30	39 06 21	074 42 48	10	845-925	122KRKDL	82-09-15	--	335	8.2	45
126	SEA ISLE CITY WD 5	39 07 47	074 42 41	7	731-802	122KRKDL	82-09-15	19.5	240	7.9	16
127	SEA ISLE CITY WD 4	39 08 47	074 42 00	7	742-830	122KRKDL	82-09-15	19.5	250	8.3	15
106	NJWC-OCEAN CITY DIST 7	39 13 43	074 37 55	8	760-810	122KRKDL	82-09-10	19.0	207	7.9	11
108	NJWC-OCEAN CITY DIST 14	39 15 00	074 36 45	7	775-840	122KRKDL	82-09-10	19.0	209	7.8	10
109	NJWC-OCEAN CITY DIST 9	39 15 35	074 36 11	8	749-809	122KRKDL	82-09-10	19.0	212	7.8	10

Geologic unit (aquifer):

121CNSY - Cohansey Sand
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation

MIDDLESEX COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
195	PERTH AMBOY WD 5	40 25 37	074 20 02	15	50- 80	211ODBG	82-08-18	12.0	214	4.2	30
196	PERTH AMBOY WD 1A	40 25 37	074 20 20	20	201-261	211FRNG	82-08-18	12.0	183	6.1	37
197	PERTH AMBOY WD 2	40 25 43	074 20 10	20	205-260	211FRNG	82-08-18	12.0	171	6.0	38
434	SOUTH RIVER BORO WD 2	40 25 56	074 21 41	20	173-198	211FRNG	82-08-18	12.0	94	5.2	10
551	SOUTH RIVER BORO WD 6-80	40 25 48	074 21 55	47	155-208	211FRNG	82-08-18	12.0	52	5.6	6.2
438	SOUTH RIVER BORO WD 5-77	40 25 59	074 21 42	20	132-182	211FRNG	82-08-18	12.5	75	5.6	8.9
346	SAYREVILLE BORO WD B	40 26 04	074 20 04	27	71- 81	211ODBG	82-08-19	13.0	420	4.5	96
356	SAYREVILLE BORO WD F	40 26 14	074 19 55	28	53- 74	211ODBG	82-08-19	13.0	525	4.1	120
366	SAYREVILLE BORO WD L	40 26 24	074 19 39	63	79- 89	211ODBG	82-08-19	13.0	136	4.3	13
440	THOMAS AND CHADWICK 1	40 26 47	074 22 27	15	167-195	211FRNG	82-09-02	--	280	6.2	47
205	OLD BRIDGE TWP MUA-LH 1	40 27 00	074 14 59	60	193-213	211ODBG	82-08-31	12.5	61	4.9	6.0
206	OLD BRIDGE TWP MUA-LH 2	40 27 00	074 14 59	60	360-395	211FRNG	82-08-31	13.0	63	6.2	2.1
383	EI DUPONT-PARLIN 8A	40 27 03	074 18 59	97	97-116	211ODBG	82-08-19	12.5	121	5.3	12
386	EI DUPONT-PARLIN 6	40 27 01	074 19 17	103	253-314	211FRNG	82-08-19	12.5	97	5.8	7.8
389	EI DUPONT-PARLIN 5	40 27 10	074 19 10	107	257-305	211FRNG	82-08-19	12.5	97	5.9	13
392	EI DUPONT-PARLIN 1	40 27 15	074 19 24	102	237-286	211FRNG	82-08-19	13.0	259	5.8	53
393	EI DUPONT-PARLIN 3	40 27 15	074 19 32	94	246-284	211FRNG	82-08-19	13.5	620	5.6	150
554	SAYREVILLE BORO WD S-80	40 27 45	074 16 45	23	210-283	211FRNG	82-08-31	12.0	60	5.9	2.0
549	SAYREVILLE BORO WD R-80	40 27 45	074 16 45	23	70-111	211ODBG	82-08-31	12.5	57	5.9	2.2
413	SOUTH AMBOY CITY WD 9	40 28 24	074 16 31	10	33- 48	211ODBG	82-08-31	12.5	170	4.2	27
414	SOUTH AMBOY CITY WD 10	40 28 25	074 16 32	10	39- 49	211ODBG	82-08-31	12.5	190	4.0	20
415	NL INDUSTRIES 4	40 28 35	074 18 15	109	220-251	211FRNG	82-09-01	12.0	73	6.1	2.5
430	JERSEY CENT P&L-WERNER 7	40 29 23	074 16 51	12	135-165	211FRNG	82-08-31	13.5	3300	5.8	920
425	DUHERNAL WATER SYS. 60F	40 27 29	074 19 38	149	282-287	211FRNG	82-08-19	15.5	4050	5.8	1200
255	CARBORUNDUM CO 1	40 30 46	074 18 27	15	57- 67	211FRNG	82-09-02	15.0	275	6.8	7.0
263	CHEVRON OIL CO 2	40 32 00	074 16 20	45	96-106	211FRNG	82-09-01	--	295	--	7.7
473	HAAGEN DAZS INC.	40 32 33	074 16 33	30	39- 59	211FRNG	82-09-01	13.5	1550	4.9	340
478	AMER CYANAMID CO 2A	40 32 36	074 16 16	9	45- 60	211FRNG	82-09-01	14.0	1360	6.0	260

Geologic unit (aquifer):

211ODBG - Old Bridge aquifer of the Magothy Formation
211FRNG - Farrington aquifer of the Raritan Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

MONMOUTH COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	OXYGEN, DISSOLVED (MG/L)
10	GSP HERBERTSVILLE 1-61	40 07 26	074 07 39	80	41- 52	121CKKD	82-06-24	12.0	160	6.0	--
8	OSBORNE POULTRY FARM	40 08 38	074 29 52	165	175-185	211MLRW	82-06-22	14.0	165	7.8	.2

LOCAL IDENTIFIER	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
GSP HERBERTSVILLE 1-61	27	6.7	2.5	21	2.8	12	13	34	<.1	4.4
OSBORNE POULTRY FARM	80	29	1.8	1.5	3.5	88	7.0	2.3	.2	13

LOCAL IDENTIFIER	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
GSP HERBERTSVILLE 1-61	110	--	--	.05	--	<1	<1	<10	--	1400
OSBORNE POULTRY FARM	108	.010	<.05	.25	1.2	2	<1	10	<1	440

LOCAL IDENTIFIER	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
GSP HERBERTSVILLE 1-61	8	32	360	.6	.4
OSBORNE POULTRY FARM	3	17	68	1.0	1.0

Geologic Unit (aquifer):

121CKKD - Kirkwood-Cohansey aquifer system
211MLRW - Wenonah-Mount Laurel aquifer

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

MONMOUTH COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
29	BRIELLE BORO WD 1	40 06 44	074 03 44	35	130-150	121CKKD	82-04-29	14.0	112	6.8	7.0
				35	130-150	121CKKD	82-09-16	--	113	6.7	6.3
30	BRIELLE BORO WD 2	40 06 45	074 03 45	33	690-750	211EGLS	82-04-29	20.0	185	8.0	1.0
				33	690-750	211EGLS	82-09-16	20.0	178	8.0	1.1
233	MANASQUAN BORO WD 6	40 07 10	074 03 29	10	180*	121CKKD	82-09-16	13.0	57	5.0	10
234	MANASQUAN BORO WD 3	40 07 12	074 03 28	15	118*	121CKKD	82-09-16	13.0	92	4.6	16
235	MANASQUAN BORO WD 2R	40 07 12	074 03 28	21	103-118	121CKKD	82-09-16	13.0	86	4.8	15
236	MANASQUAN BORO WD 1R	40 07 13	074 03 29	15	98-116	121CKKD	82-09-16	13.0	65	4.7	11
237	MANASQUAN BORO WD 5	40 07 14	074 03 29	15	98-117	121CKKD	82-09-16	13.0	61	4.8	11
512	SEA GIRT BORO WD 7-80	40 08 02	074 02 30	21	92-124	121CKKD	82-09-16	13.5	71	5.8	11
374	SEA GIRT BORO WD 5	40 08 04	074 02 27	20	660-710	211EGLS	82-09-16	19.0	182	8.0	1.1
384	SPRING LAKE BORO WD 2	40 08 45	074 02 10	15	640-700	211EGLS	82-09-15	19.0	178	8.0	1.1
383	SPRING LAKE BORO WD 1	40 08 49	074 02 07	15	631-711	211EGLS	82-09-15	19.0	177	7.9	1.1
387	SPRING LAKE HTS WD 1-53	40 08 58	074 03 09	60	570-600	211MLRW	82-09-15	17.0	179	8.3	.9
385	SPRING LAKE BORO WD 3	40 09 15	074 01 46	20	640-705	211EGLS	82-09-15	--	174	8.0	1.1
391	SPRING LAKE HTS 4-74	40 09 29	074 02 11	20	485-560	211MLRW	82-09-15	--	177	8.3	1.5
386	SPRING LAKE BORO WD 4	40 09 52	074 01 49	15	600-670	211EGLS	82-09-15	19.0	169	7.9	.9
26	BELMAR BORO WD 4-ELEC	40 11 02	074 00 45	15	601-671	211EGLS	82-09-15	19.0	187	7.8	.9
14	AVON-BY-THE-SEA WD 1	40 11 38	074 01 25	28	424-504	211MLRW	82-09-15	17.0	235	8.1	1.8
1	ALLENHURST BORO WD 4	40 14 01	074 00 25	17	525-565	211EGLS	82-09-15	--	202	7.5	1.5
190	KEANSBURG BORO WD 4	40 26 21	074 07 38	10	280-340	211ODBG	82-09-08	13.5	300	6.2	65
117	HIGHLANDS BORO WD 4-73	40 24 01	073 59 20	20	630-680	211ODBG	82-09-14	19.5	103	6.5	1.2
496	ATL. HIGHLANDS WD 4-80	40 24 41	074 02 33	15	510-543	211ODBG	82-09-14	16.5	106	6.7	1.3
513	ATL. HIGHLANDS WD 5-82	40 24 42	074 02 42	20	506-548	211ODBG	82-09-14	16.5	97	6.5	1.5
284	MATAWAN BORO WD 3	40 25 15	074 14 50	90	231-271	211ODBG	82-09-09	13.0	69	5.6	3.7
195	KEANSBURG BORO WD 5A	40 26 21	074 07 43	10	290-350	211ODBG	82-09-08	13.5	81	6.1	4.1
111	W KEANSBURG WC-HAZLET 1	40 25 33	074 09 32	59	327-366	211ODBG	82-09-08	13.5	70	6.3	1.9
112	W KEANSBURG WC-HAZLET 2	40 25 37	074 09 33	44	312-352	211ODBG	82-09-08	13.5	72	6.2	1.6
197	KEYPORT BORO WD 7	40 25 35	074 12 14	35	304-354	211ODBG	82-09-09	13.5	71	6.0	2.6
199	KERR GLASS CO	40 25 42	074 12 20	20	285-315	211ODBG	82-09-09	13.5	74	6.1	1.8
294	MATAWAN BORO WD 1	40 24 27	074 13 45	20	210-235	211ODBG	82-09-09	13.0	89	5.8	1.8
191	KEANSBURG BORO WD 6-68	40 26 20	074 07 42	10	302-362	211ODBG	82-09-08	13.5	82	6.3	2.3
196	KEANSBURG BORO WD 3	40 26 28	074 07 44	12	308-348	211ODBG	82-09-08	13.5	91	6.5	4.5
498	BAYSHORE 2-W, KEANSBURG	40 26 29	074 08 14	20	350*	211ODBG	81-10-01	--	170	--	3.0
453	UNION BEACH BORO WD 3-77	40 26 32	074 10 51	10	480-532	211FRNG	81-10-01	14.0	79	6.5	2.2
				10	480-532	211FRNG	82-09-14	14.0	78	6.3	2.4
420	UNION BEACH BORO WD 2-69	40 26 34	074 10 52	10	262-289	211ODBG	81-10-01	13.5	4400	5.7	1400
				10	262-289	211ODBG	82-09-14	13.0	4550	--	1600
456	INT FLAVOR FRAG 3-76	40 26 40	074 09 04	10	277-316	211ODBG	81-10-01	13.5	65	6.1	2.2
				10	277-316	211ODBG	82-09-08	13.5	64	6.2	1.6
424	INT FLAVOR FRAG 2	40 26 41	074 09 11	10	302-326	211ODBG	81-10-01	14.0	60	6.1	1.6
				10	302-326	211ODBG	82-09-08	13.5	63	6.2	1.6
423	INT FLAVOR FRAG 1	40 26 41	074 09 19	10	298-328	211ODBG	81-10-01	13.5	63	6.4	1.8
				10	298-328	211ODBG	82-09-08	13.5	62	6.5	1.7
320	NPS-SANDY HOOK 5A-70	40 27 05	073 59 59	14	838-878	211FRNG	82-09-14	19.0	129	6.7	5.5
462	KEANSBURG AMUSE. PARK CO	40 27 17	074 08 16	10	200-250	211ODBG	81-10-01	13.5	200	--	38
				10	200-250	211ODBG	82-09-20	13.0	163	--	28

* Total depth of well.

Geologic unit (aquifer):

121CKKD - Kirkwood-Cohansey aquifer system
211MLRW - Wenonah-Mount Laurel aquifer
211EGLS - Englishtown aquifer
211ODBG - Old Bridge aquifer of the Magothy Formation
211FRNG - Farrington aquifer of the Raritan Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

OCEAN COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	OXYGEN, DISSOLVED (MG/L)
30	GSP STAFFORD FORGE PIC A	39 40 00	074 19 04	20	54- 65	121CKKD	82-06-24	15.0	32	--	--
31	GSP OYSTER C PIC AREA	39 48 23	074 13 58	30	53- 64	121CKKD	82-06-24	13.5	46	--	--
58	TOMS RIVER WC 21	39 57 15	074 12 31	10	45- 55	121CKKD	82-06-29	13.5	136	5.6	.3
36	GSP POLHEMUS C PIC AREA	40 01 59	074 10 47	80	55- 65	121CKKD	82-06-24	12.5	33	6.7	--
29	NJDOT MAINT YARD	40 02 15	074 14 48	70	68- 78	121CKKD	82-06-22	10.5	32	6.4	4.8
33	MAPLE GLEN MOB H PK 2-75	40 04 26	074 20 42	110	47- 57	121CKKD	82-06-29	14.0	54	6.0	.2
34	FST NAT B TOMS R JACKSON	40 07 17	074 15 41	110	43- 47	121CKKD	82-06-29	22.0	138	7.1	.5

LOCAL IDENTIFIER	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
GSP STAFFORD FORGE PIC A	3	.3	.6	3.7	.4	--	3.0	5.6	<.1	4.4
GSP OYSTER C PIC AREA	3	.7	.3	2.3	1.4	--	11	3.9	<.1	13
TOMS RIVER WC 21	22	5.8	1.8	14	1.3	14	16	21	<.1	6.0
GSP POLHEMUS C PIC AREA	2	.2	.5	3.4	.3	12	<1.0	5.1	<.1	5.1
NJDOT MAINT YARD	3	.2	.7	2.7	.4	8	<1.0	4.2	<.1	5.1
MAPLE GLEN MOB H PK 2-75	1	.1	.2	1.9	.2	24	1.0	2.9	<.1	9.1
FST NAT B TOMS R JACKSON	34	13	.5	19	.5	72	7.0	2.0	<.1	9.4

LOCAL IDENTIFIER	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
GSP STAFFORD FORGE PIC A	22	--	--	<.05	--	<1	1	<10	--	130
GSP OYSTER C PIC AREA	38	--	--	.06	--	<1	<1	<10	41	1900
TOMS RIVER WC 21	85	<.010	<.05	.20	<.03	<1	1	<10	5	5900
GSP POLHEMUS C PIC AREA	21	--	--	.09	--	<1	<1	<10	--	84
NJDOT MAINT YARD	20	.010	.66	.16	<.03	1	<1	10	2	71
MAPLE GLEN MOB H PK 2-75	18	<.010	<.05	<.05	<.03	1	1	10	2	12000
FST NAT B TOMS R JACKSON	92	<.010	<.05	.20	.15	1	1	<10	14	10

LOCAL IDENTIFIER	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
GSP STAFFORD FORGE PIC A	--	66	140	.3	.3
GSP OYSTER C PIC AREA	2	21	44	.2	<.3
TOMS RIVER WC 21	<1	43	10	1.6	1.6
GSP POLHEMUS C PIC AREA	2	10	--	.3	.3
NJDOT MAINT YARD	4	7	60	.3	<.3
MAPLE GLEN MOB H PK 2-75	<1	26	700	.8	.6
FST NAT B TOMS R JACKSON	<1	1	4	.2	.2

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

OCEAN COUNTY--Continued

WELL NUMBER	LOCAL IDENTIFIER	DATE OF SAMPLE	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	BROM-OFORM TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-OFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)
58	TOMS RIVER WC 21	82-06-29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	<1.0

LOCAL IDENTIFIER	CHLORO-ETHANE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-CHLORO-FLOURO-METHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)
TOMS RIVER WC 21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

LOCAL IDENTIFIER	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	CHLORO-ETHYL-ENE TOTAL (UG/L)	1,3-DI-CHLORO-PROPANE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)
TOMS RIVER WC 21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Geologic unit (aquifer):
121CKKD - Kirkwood-Cohansey aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

OCEAN COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
455	LONG BEACH TWP WD 2	39 32 06	074 15 48	5	426-451	122KRKDU	82-09-24	16.0	140	7.4	1.6
462	L EGG HARB MUA-MYSTIC 3	39 32 53	074 23 08	8	509-553	122KRKDL	81-12-03	16.0	58	6.7	2.0
9	BEACH HAVEN BORO WD 8	39 33 46	074 14 30	5	572-656	122KRKDL	82-09-24	17.0	69	6.3	3.5
464	L EGG HARB MUA-MYSTIC 2	39 34 28	074 22 02	25	485-542	122KRKDL	81-12-03	15.0	65	6.7	2.0
465	L EGG HARB MUA-HOLLY LK	39 35 09	074 20 48	20	308-329	122KRKDU	81-12-03	14.0	56	6.4	2.0
597	TUCKERTON MUA 5-79	39 36 10	074 20 21	25	500*	122KRKDL	82-01-07	15.0	70	6.5	1.0
565	TUCKERTON MUA 1-64	39 36 10	074 20 31	10	463-497	122KRKDL	82-01-07	15.0	67	6.3	2.0
544	SHIP BOTTOM BORO WD 4	39 38 39	074 10 52	5	536-578	122KRKDL	82-09-24	16.5	61	6.5	3.3
559	SURF CITY BORO WD 3	39 39 12	074 10 22	5	516-557	122KRKDL	82-09-24	16.5	60	6.4	3.2
560	SURF CITY BORO WD 4	39 39 38	074 10 06	5	517-557	122KRKDL	82-09-24	16.0	63	6.3	3.3
553	TONNESON, EDWARD	39 40 09	074 13 04	5	280*	121CKKD	81-12-10	13.0	204	--	47
				5	280*	121CKKD	82-09-23	13.5	212	4.9	51
554	STAFFORD WC 2	39 40 21	074 13 51	5	219-234	121CKKD	81-12-02	13.0	44	5.5	3.0
557	STAFFORD WC 3	39 40 42	074 14 11	8	385-428	122KRKDL	81-12-02	15.0	52	6.1	3.0
111	HARVEY CEDARS BORO WD 4	39 41 34	074 08 32	5	465-500	122KRKDL	82-09-24	17.0	72	6.5	2.9
566	BARNEGAT WC FLOWING 1	39 44 44	074 12 10	33	155*	121CKKD	82-09-23	13.0	52	4.6	5.4
2	BARNEGAT LIGHT BORO WD 3	39 45 22	074 06 36	7	597-654	124MNSQ	82-09-24	17.0	365	8.6	1.9
594	OCEAN TWP MUA 4-78	39 46 17	074 12 29	15	125-150	121CKKD	81-12-15	13.0	56	4.8	6.0
				15	125-150	121CKKD	82-09-27	13.5	83	--	6.8
512	OCEAN TWP MUA 1-60	39 47 44	074 11 29	5	140-160	121CKKD	82-09-27	13.0	58	4.4	4.6
513	USGS-GARDEN ST PKWY OBS1	39 47 42	074 14 20	44	18- 21	121CKKD	82-04-14	10.0	45	5.9	8.0
514	USGS-GARDEN ST PKWY OBS2	39 47 42	074 14 20	43	306-316	121CKKD	82-04-14	13.0	53	5.8	4.0
756	ISLAND BEACH ST PK TP	39 50 48	074 05 19	10	297-331	121CKKD	82-05-13	14.0	69	6.3	3.0
703	ISLAND BEACH ST PARK	39 50 50	074 05 19	20	271-291	121CKKD	82-05-20	16.0	72	6.6	2.0
613	BERKELEY WC-PINEWALL	39 52 48	074 10 11	45	200*	121CKKD	81-12-28	13.0	55	5.3	5.0
22	SHORE WATER CO 1	39 54 22	074 04 58	10	175-200	121CKKD	82-09-24	14.0	55	--	4.9
697	ARLINGTON BEACH WC 1	39 54 43	074 05 00	10	76- 86	121CKKD	82-09-24	14.0	94	--	6.7
541	SEASIDE PARK BORO WD 2	39 54 51	074 04 55	10	477-517	124MNSQ	82-09-24	15.5	204	--	1.2
612	BERKELEY WC-BAYVILLE	39 54 54	074 09 06	20	90*	121CKKD	81-12-28	14.5	97	4.3	4.0
13	BEACHWOOD BORO WD 4	39 55 27	074 12 21	60	67- 97	121CKKD	82-09-23	13.0	51	4.6	6.5
508	OCEAN GATE BORO WD 3	39 55 28	074 08 26	10	133-153	121CKKD	82-09-23	13.0	51	5.6	6.0
710	JCP&L PINEWALD & KES RD	39 55 28	074 16 00	55	96-100	121CKKD	82-03-10	12.5	25	5.5	3.0
582	SEASIDE PARK BOR WD 6-77	39 55 47	074 04 34	12	435-485	124MNSQ	82-09-24	16.5	257	--	1.3
538	SEASIDE HTS BORO WD 1R	39 56 36	074 04 39	5	144-175	121CKKD	82-09-24	14.5	675	--	160
115	ISLAND HTS BORO WD 8	39 56 39	074 08 54	12	115-292	124MNSQ	82-04-27	13.5	112	6.7	4.0
617	SEASIDE HTS BORO WD 5-78	39 56 52	074 04 42	5	175*	121CKKD	82-09-24	14.5	83	--	8.4
58	TOMS RIVER WC 21	39 57 15	074 12 31	10	45- 55	121CKKD	82-06-29	13.5	136	5.6	21
				10	45- 55	121CKKD	82-09-23	13.0	168	5.9	25
626	TOMS RIVER WC 30-81	39 57 21	074 12 30	9	1700-1875	211MRPA	82-09-23	26.0	123	6.9	1.2
577	LAVALLETTE BORO WD 5-78	39 57 41	074 04 37	10	1394-1498	211MRPA	82-09-23	24.5	186	--	1.2
454	LAVALLETTE BORO WD 2	39 58 08	074 04 21	5	1009-1136	211EGLS	82-09-23	19.0	232	--	4.1
80	OCEAN CO COLLEGE 2-70	40 00 04	074 09 40	20	66- 80	121CKKD	82-05-05	13.5	57	4.6	7.0
100	NJWC OC CO DIS NORMNDY 3	39 59 56	074 03 44	8	1428-1479	211MRPA	82-09-23	24.5	173	--	1.1
6	NJWC OC CO DIS BAYHEAD 6	40 04 05	074 02 44	10	778-818	211EGLS	82-09-23	21.0	213	--	1.0
530	PT PLEASANT BORO WD 6	40 04 54	074 04 13	20	730-790	211EGLS	82-09-23	20.5	197	--	1.1
531	PT PLEASANT BORO WD 5	40 04 54	074 04 14	18	1256-1342	211MRPA	82-09-23	25.0	143	--	1.1
533	PT PLEASANT BORO WD 4	40 05 01	074 04 55	7	45- 75	121CKKD	82-09-23	13.5	183	--	20
579	PT PLEAS BCH BORO WD 11	40 05 12	074 02 51	5	130-143	121CKKD	82-09-23	14.0	139	--	22
523	PT PLEAS BCH BORO WD 10	40 05 51	074 02 43	5	87-130	121CKKD	82-09-23	15.0	840	--	220

* Total depth of well.

Geologic unit (aquifer):

121CKKD - Kirkwood-Cohansey aquifer system
122KRKDU - Rio Grande water-bearing zone of the Kirkwood Formation
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation
124MNSQ - Manasquan Formation
211EGLS - Englishtown aquifer
211MRPA - Potomac-Raritan-Magothy aquifer system

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\text{x}10^{1}$	millimeters (mm)
	$2.54\text{x}10^{-2}$	meters (m)
feet (ft)	$3.048\text{x}10^{-1}$	meters (m)
miles (mi)	$1.609\text{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\text{x}10^{3}$	square meters (m^2)
	$4.047\text{x}10^{-1}$	square hectometers (hm^2)
	$4.047\text{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\text{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\text{x}10^{0}$	liters (L)
	$3.785\text{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\text{x}10^{-3}$	cubic meters (m^3)
million gallons	$3.785\text{x}10^{3}$	cubic meters (m^3)
	$3.785\text{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\text{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\text{x}10^{-2}$	cubic meters (m^3)
cfs-days	$2.447\text{x}10^{3}$	cubic meters (m^3)
	$2.447\text{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\text{x}10^{3}$	cubic meters (m^3)
	$1.233\text{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\text{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\text{x}10^{1}$	liters per second (L/s)
	$2.832\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\text{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\text{x}10^{-2}$	liters per second (L/s)
	$6.309\text{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\text{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\text{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\text{x}10^{-1}$	megagrams (Mg) or metric tons